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SCIENCE AND INDUSTRY

Manufacturers Record

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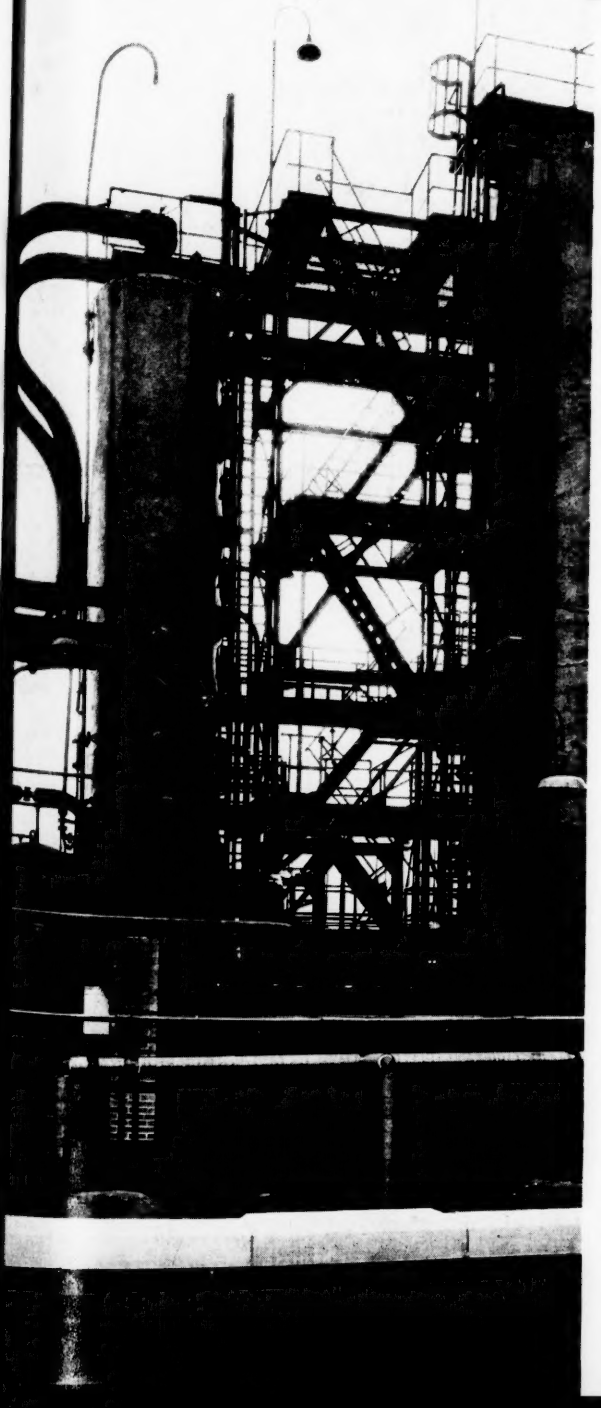


REFERENCE
DO NOT LOAN

OPPORTUNITY

Misgiving would be changed to confidence if the administration would take the lead in offering encouragement to private industry which is, and always will be, the mainstay of our progress.

The idea evidently persists in the minds of the apostles of the "more abundant life" who would remake America, that everything of the old order is wrong, and industry has been the ring leader in wrongdoing.

Accumulated capital presses for investment, and there is a vast market of human needs to be filled. Prosperity under fair skies will reach a height unknown in the past.

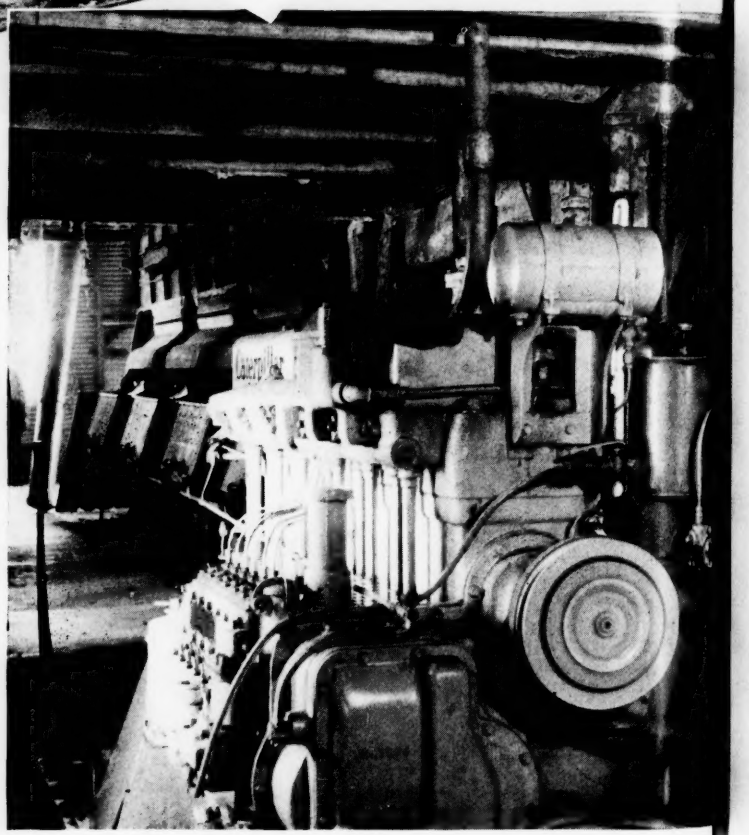
STATE

MAY, 1937

PETROLEUM AND NATURAL GAS RESOURCES AND CONSUMPTION • NEW INDUSTRIES FOR THE SOUTH • RAILROADS CONTRIBUTION TO RECOVERY • PLACE OF NAVAL STORES THE FLYING SOUTH

THIS GINNER SAVES 65c A BALE WITH DIESEL POWER

This D13000 operates four 80-saw stands through V-belt drive; two 35-inch fans for unloader and air blast; a Hancock bur extractor. Has front power take-off to drive 3-cylinder pump for hydraulic press; also power-shaft take-off to outside feed cutter. With 5c fuel oil and 68c lubricating oil, operating cost is around 13c a bale.



"MONEY saved is profit gained." When operating at full capacity—14 hours a day—this Diesel-powered gin puts into its owner's pocket a cool $190 more per 6-day week than under the type of power formerly used. He states: "Can't say too much for the 'Caterpillar' Diesel Engine. There is no comparison with any other make in the power it can turn out."

It's all very simple. "Caterpillar" has brought Diesel engine operation to a point where it costs only a few cents a bale . . . while long life and trouble-free performance keep depreciation and maintenance down to the minimum.

On all sorts of jobs, these modern engines are reducing costs decidedly . . . cotton ginning, flour and feed milling, mining, sawmilling and pumping—serving all classes of industry. There's a dealer near you.

"Caterpillar" Diesel Engines are available in seven sizes—from 44 to 160 hp.

CATERPILLAR DIESEL ENGINES

REG. U.S. PAT. OFF.

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

WORLD'S LARGEST MANUFACTURER OF DIESEL ENGINES

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MAY 1937

Volume CVI No. 5

MANUFACTURERS RECORD

Devoted to the Upbuilding of the Nation Through the Development of the South and Southwest as the Nation's Greatest Material Asset

Published Monthly

by the

MANUFACTURERS RECORD PUBLISHING CO.

Frank Gould, President

Main Office: Manufacturers Record Building, Commerce and Water Streets, Baltimore, Md. Phone: Plaza 7080-1.

Branch Offices:

New York—11 W. 42nd St. Phone: Longacre 5-7180.

Chicago—28 East Jackson Blvd., Room 1510 Phone: Harrison 5867

Cleveland, Ohio—1745 Wymore Ave. Phone: Glenville 2275

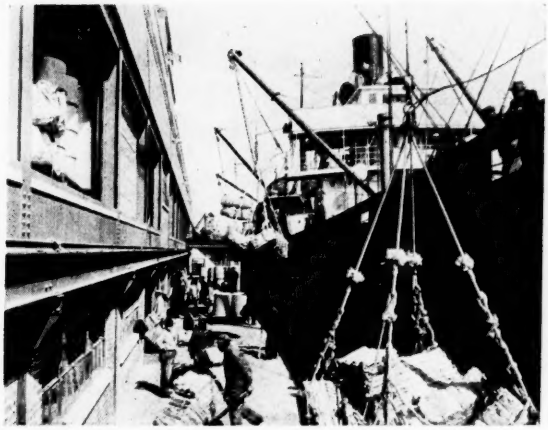
Subscription Rate: $2.00 a year (in advance). Single copies, 25c; back numbers, one to six months, 50c each; over six months, $1.00. Combination rate for Manufacturers Record and Daily Construction Bulletin, $11.00 a year.

Subscribers are asked to notify us of change in address to avoid delay in service.

PUBLISHERS DAILY CONSTRUCTION BULLETIN AND BLUE BOOK OF SOUTHERN PROGRESS

Member A.B.C.

MAY NINETEEN THIRTY-SEVEN



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KOPPERS

serves th

Fast's self-aligning Couplings have virtually unlimited life—Nearly 100,000 Fast's Couplings now are in operation and transmitting several hundred million horse-power for widely varied industries. Pictured is one of the earliest paper mill installations—a group of Fast's Couplings No. 4 and No. 5 which were inserted in the sectional drives at the Iroquois Falls (Ont.) plant of the Abitibi Power and Paper Co. These Fast's Couplings have delivered power, without falter, through literally billions of continuous revolutions and are still serving effectively.

Also pictured is an installation at the Arlington Ice and Fuel Co. plant, Baltimore, where a group of No. 5 Fast's are transmitting an even flow of power from Diesel engines to ammonia compressors.

Built without pliant parts of any kind, thus eliminating fatigue and failure under repeated bending or tension, Fast's self-aligning Couplings also have the only metal-to-metal seal at the bearing rings, which makes them permanently dust and moisture proof.

Fast's Couplings are made exclusively by Bartlett Hayward Division of Koppers, at Baltimore.

• Manufacturers Record •

AN AMENDMENT NEEDED

CONGRESS should adopt promptly an amendment to the Wagner Labor Relations Act, defining the rights of employers when subjected to unfair practices. This glaring omission has caused widespread and well grounded criticism.

The Act assumes that all unfair practices are on the part of employers. The evidence, of course, is to the contrary. Coercion, violence, threats to employers and to peaceful employees and their families, have been far from unknown in the ranks of radical labor. With the admixture of agitators and communists, who have as a part of their code the most outrageous intimidation of law abiding workmen, unlawful tactics have been increasing.

In such performances as have been witnessed in Michigan, and in fact in many of our states, there is a clear violation of law and a disturbance of peace. The author of the Wagner Act put down as one of its chief objectives—"To eliminate the causes of certain substantial obstructions to the free flow of commerce and to mitigate and eliminate these obstructions when they have occurred." The remainder of the sentence in the Act reads—"By encouraging the practice and procedure of collective bargaining and by protecting the exercise by workers of full freedom of association, self-organization, and designation of representatives of their own choosing, etc."

The failure "to encourage collective bargaining" may, in some instances, have been "obstructions to the free flow of commerce," but it is certain in the relationship between employers and employees there have been other obstructions for which employers have not been responsible.

Every sane person knows that to seize possession of a plant, with the demand that the law breakers will not leave until a particular union is recognized as the sole bargaining agency for all the employees, whether the majority wants that union to speak for it or not, is an outrageous action against the security of society, as well as an "obstruction" to commerce.

Senator Wagner will be doing a service to the country if he tries to repair the omission by proposing a suitable amendment. As it stands at present it is class legislation.

It is equally important that labor unions shall be made to accept legal responsibility for their acts. Labor's obligations are as definite as labor's rights. The law should take cognizance of them. They are inescapable. There is no way at present to hold a labor union responsible under the law. Incorporation has been opposed by labor leaders, and yet it is a clear duty to the public that responsibility shall be placed where it belongs, and unions be amenable under the law for actions obstructing the "free flow of interstate commerce."

The attitude of government toward business is shown not only in the one-sided Wagner Labor Relations Act, but in other measures that force the conclusion they are indicative of a planned policy.

Punitive legislation has been the order of the day. It is a simple statement of fact that despite present activity, men of business are filled with misgivings about what is in store.

There are too many disquieting attempts being made to regulate, too many threats to orderly progress for any student of the course of government to avoid the belief that the purpose is to center in government the control of all activity.

It is evidenced by the measures passed and proposed in Congress, and the disturbingly frank propaganda issued from day to day.

As we asked recently, "while this goes on and the things that have built America are flouted and cast aside, is it any wonder that men question the future?"

SOUTHERN CAPITAL'S OPPORTUNITY

THE investment of local capital in Southern industry and development is receiving greater consideration in the South as the need and opportunities become more generally recognized. These facts were strikingly presented by Robert M. Hanes, president of the Wachovia Bank & Trust Company in the January MANUFACTURERS RECORD. Keep Southern money at home for the development of home industries is sound advice.

Dr. J. Samuel Guy, chemist of Atlanta, speaking recently before a forum at Cartersville, Ga., said:

"The natural resources of Georgia are now beginning to receive the attention of many outside of the state. As a result, foreign capital is being heavily invested. One naturally asks the question why Georgia bankers should deposit our surplus cash with New York banks and have this or other money of equal value reinvested to develop our own natural resources.

"It would be safe to say that more than $100,000,000 of perfectly good Georgia money could be invested in the coming new industries of the state.

"New and interesting applications of chemistry to the products of the Georgia farm are bound to come. Everyone knows that real profits come with the industrial development of these products—after they leave the possession of the farmer.

"Those people manufacturing edible oils from cottonseed or soybean make huge profits as compared with the small profits that come to the farmer for his part in the industry. A plea is made for the financial interests of the state to back the efforts now being made by the Chemical Foundation. One friend of the South, living in New York and believing in the South, has contributed liberally of his own money to establish the paper industries here. Surely after he has proven the possibility of this venture there can be no real excuse for Georgians permitting Canadian and other foreign capital to get the cream from the paper mills which are rapidly coming our way. It seems certain that more than $50,000,000 of foreign money will be wanted in our state to develop the paper and starch industries. While this need is fully appreciated by New York bankers, shall we permit our own Southern money to stand idle? The greatest possible need for Georgia today is the confidence of our financial interests. And so in other Southern states, where similar opportunities call for the development of local industries."

There is abundant and striking evidence in the South of what wise investment can accomplish for the investor and communities obtaining the benefit of new wealth creation. The rapid expansion of pulp and paper making from Southern pine, in which approximately $85,000,000 is being spent in new Southern projects, is an outstanding example.

Other major developments in iron and steel, rayon, bromine from sea water, soda nitrate, alkali and other chemical plants, besides diversified enterprises, processing and fabricating over a wide field, afford investment opportunities for Southern financial interests and individuals.

Possibilities of great promise are found in the processing of the South's expanding tung oil industry, the manufacture of starch and alcohol from sweet potatoes, camphor from naval stores, and other chemurgic products that can utilize the abundant raw materials of the agricultural resources of the South. The growing of cotton for its cellulose content is not a far distant possibility.

In the past few years has come the development of white paper from Southern pine, cotton containers, and cotton fabric in road construction and in the industrial field, fireproof cotton fabrics, cotton insulation, cellophane products, composition building board from wood and bagasse, the waste product of sugar cane. These are only the beginning of many new products resulting from research. The ultimate use of the South's vast mineral resources in oil and gas, coal, clays, salt and other minerals, when their full chemical by-products are developed, will mean the establishment of other industries creating employment and adding to the wealth of the whole region.

Southern capital is needed at home.

WHY *NOT* A SALES TAX?

PRINTED elsewhere is an article "Sweeping Tax Changes Recommended," embodying the suggestions made by the Committee on Taxation of the Twentieth Century Fund. These conclusions have been reached following a two year survey by twenty research specialists under the auspices of a Committee of which Thomas I. Parkinson, President of the Equitable Life Assurance Society is the head.

A work of this kind deserves, and doubtless will receive, the thoughtful consideration of business men. Growing taxes, which are mounting rapidly and are going to mount more, are an increasing burden upon business and individuals.

The complexities of the tax plans now employed may excite admiration for the ingenuity of their devisers, but they involve a tremendous burden of effort in following their intricate paths. This effort cost added to the visible dollars of the tax total, makes the load heavier.

In the recommendations of the Committee, the objections to unfair, unworkable taxes, which do not accomplish their purposes, are clearly put forth, but the alternatives proposed do not appear to free taxpayers from the confusion of detail to which there is objection.

Must all tax plans be complicated? Must a man not only work in order to earn the money with which to pay his tax, but keep on working for a considerable time to figure out how much he must pay to various agencies of government—local, state and national?

The thought obtrudes—why not simplify it all by a consumers' sales tax? Such a tax has proven its workability in various states that have tried it, but the politicians throw up their hands when it is suggested. It used to be that pyramiding, and there was some danger of that, was argued as an objection to this practical operation, and that was the principal objection. Another, of less importance, was the question what should be exempted. A man must eat, he must have a roof over his head, etc., but this form of tax persists in its appeal as a practical, workable measure that will do away with most of the burdensome, involved taxes we are piling up, one after the other, in all kinds of forms, open, insidious and complicated.

Interest in it should be revived, and insistence for its adoption increased.

HIGH WAGES—HIGH PRICES

BUILDING costs have been steadily mounting as construction activity increases. With rising material prices and higher wages, demand has strengthened, again proving the fact that people buy in a rising market.

In the NRA period, President Roosevelt advocated higher prices "up to the 1926 level," but recently fear has been expressed by the administration that further advances in prices of materials will slow up the revival in construction which got under way in 1935.

It is true that unjustified cost increases, artificially induced, will discourage construction, but even then the law of supply and demand has its part in what buying is done.

Some materials entering the construction field have reached the 1926 level. Commodity prices are now 87 per cent of the 1926 average, while building materials are 96.8 per cent, and metals and metal products 95.8 per cent. Since the low figures of 1933, building material prices have increased 37 per cent.

In this increase, high wage rates have had a considerable part and naturally, for as the demand for labor increases it commands more for its services. It was expected that the revival of building and the upward trend of living costs would bring about such increases.

Real wages, which is the amount earned expressed in the buying power of the dollar, today are near the highest in the country's history. In 1937, the cost of living is 42 per cent above the 1914 level, while wages are 106 per cent above those of 1914.

As nearly 40 per cent of the cost of residential building is in wages, it is well to examine the demands of some building unions for further increases in the rates of pay and a drastic curtailment of the work day. A shorter work week means a longer period to complete a construction job and this involves added cost to the owner or builder for interest and insurance charges. It is estimated that a reduction in the work week of five hours will reduce efficiency because of more starts and finishes during the period of construction and increase labor costs by more than 15 per cent, even if there is no increase in the wage. This would appear to be an excessive cost, unjustified by conditions and likely to discourage investors.

Union scales in many building trades have been advanced 10 and 15 per cent, while increases in manufacturing wages have added to high prices for materials entering the construction field, so that the cost of labor, whether economically justified or not, is having a lot to do with the rising costs of building. It has not been long since prices which were regarded as excessive and unjustified caused consumers to stop buying. If that comes about again, labor as always will be the first to suffer. It would seem to be important that labor should take a reasonable attitude and recognize the fact, as figures previously quoted prove, that increases in pay are now beyond increases in cost of living.

PROMISING GROWTH

THE South's most promising industrial development is taking place, and at a time when accumulated capital, piled up in enormous sums, is pressing for investment.

While there has been hesitation and delay in the processes of recovery, with disturbing influences that have created doubt about investment, money keeps on piling up. Human needs, too, keep on growing and must be supplied.

It has been the experience of countries which have gone through inflation and deflation, that whatever form government may take, investment in private industry is one of the surest rocks upon which to build.

The value of the South's manufactured products has returned to the high mark. Census figures announce $9500 millions as the annual value of what this section makes. The South's iron and steel, textile, furniture, and paper plants, among its major industrial groups, are operating at their highest point since the year of greatest prosperity. Last year more than $322,000,000 was invested in private industrial expansion and the total construction awards of $939,000,000 were the largest on record.

These striking facts are only a part of the voluminous data to be published in the *Blue Book of Southern Progress*, which will shortly appear. Contracts let by private owners reached $454,000,000 in 1936. Investment in new and proposed paper plants is more than $85,000,000, and this is only one phase of the interest capital is showing in the unparalleled opportunities the South possesses.

The *Blue Book of Southern Progress* is more than a Southern publication in that it sets before its readers a story of creative effort and accomplishment which are adding so greatly to the wealth of America. The development of the South as the nation's greatest asset means the enrichment of the nation.

A large part of the circulation of this volume, which has appeared annually for many years, is among industrial plants of the Northern states. The widest possible dissemination of its contents to people throughout the country is important in bringing attention to what the South has and what it is doing. Those whose investments rest largely upon Southern development will be furthering the South's growth and advancing their own interests by distributing copies to their mailing list. They can be supplied before the press run is completed for half the cost of what they will be later.

The *Blue Book of Southern Progress* is a vital exposition of facts not obtainable elsewhere, of daily value to every industrialist, investor and general business man.

PETROLEUM—CROWN PRINCE OF THE SOUTH

Supplies Two-Thirds of Country's Petroleum Energy. Has Estimated Investment of $6,000,000,000 in Southern Oil Reserves and Production Enterprises

IF cotton is king in the South, then petroleum is the crown prince. Manufacturing now vies with agriculture as the outstanding business activity of the South. Rich industrial centers dot the area. In fact the $9,500,000,000 annual value of manufacturers is more than double the output of Southern agriculture. Great manufacturing enterprises convert Southern raw materials into hundreds of finished products marketed in every state of the Union and in scores of foreign countries.

In the industrial development of the South petroleum, a pre-eminently Southern product, plays it role. Without power there can be no industry. Industry without transportation could not function. Finally, not a wheel could turn, in industry or transportation, except for lubricants, derived today entirely from petroleum.

Petroleum Refining in the South, 1935 Census

States	Number Establishments	Wage Earners Average, Year	Wages	Cost of Materials and Power	Value Products
Alabama	1	*	*	*	*
Arkansas	5	436	$533,615	88,507,773	$10,476,049
Georgia	2	*	*	*	*
Kentucky	8	566	740,877	11,621,587	15,787,263
Louisiana	11	4,118	5,857,866	67,830,238	82,441,397
Maryland	3	*	*	*	*
Missouri	1	*	*	*	*
Oklahoma	33	5,077	6,552,503	88,739,602	106,689,449
South Carolina	1	*	*	*	*
Texas	98	17,694	23,512,282	359,213,554	437,790,250
Virginia	1	*	*	*	*
West Virginia	4	578	705,301	9,282,518	10,305,313
Total	168	28,469	$37,902,444	8545,195,272	$663,489,721
United States	394	77,402	$109,714,355	$1,478,224,853	$1,838,621,913

*State figures not available without disclosing operations of individual companies. The 9 refineries in the 6 states had a combined output of approximately $36,000,000 and they spent about $32,000,000 for materials and power.

Of the more than 24,000 trillion B.t.u. of energy produced last year in the United States, 6,785 trillion B.t.u., or nearly one-third, came from petroleum, according to the American Petroleum Institute. Southern petroleum accounted for approximately two-thirds of all petroleum energy produced in the United States.

Official consumption statistics show that the South itself utilized a large share of its own petroleum power, both in industry and transportation.

Southern motor vehicles, numbering more than 7,000,000 motor cars and trucks, serving industry, commerce, and agriculture, last year consumed more than 5,250,000,000 gallons of gasoline. This was slightly in excess of one-quarter of all gasoline consumed in the United States during the year.

Latest available data indicate that the South has installed in manufacturing industries alone some 30,000 steam engines aggregating 4,000,000 horsepower and internal combustion engines capable of developing nearly 400,000 horsepower.

That a large number of the steam engines utilize petroleum fuels is evidenced by the fact that in 1935 Southern manufacturing enterprises consumed nearly 8,000,000 barrels of fuel oil.

Fuel oil also plays an important role in Southern transportation. Railroads operating in the South in 1935 used 25,356,000 barrels and steamship and tankers working out of Southern ports consumed another 21,905,000 barrels.

That a goodly portion of the electricity generated in the South stems from petroleum power is demonstrated by the fact that Southern public utility power plants in 1935 used 5,191,000 barrels of fuel oil.

Fuel oil is utilized in the South also to heat homes and public buildings, by smelters and mines, and by oil companies in their own operations. Total quantity used in 1935 amounted to 93,997,000 barrels, or 25.7 per cent of all fuel oil used in the United States during that year.

Gasoline and fuel oil are only two of the many petroleum products so vital to the further development of the New South. The importance of lubricants has already been touched upon and in addition there are hundreds of specialized

(*Continued on page 42*)

Production of Crude Petroleum and Consumption of Petroleum Products in the South

Authority: U. S. Bureau of Mines and American Petroleum Institute

States	Crude Petroleum Production 1936 Barrels	Gasoline Consumption 1936 Gallons	Consumption of Gas Oil and Fuel Oil 1935 Barrels
Alabama	.....	204,623,000	1,294,000
Arkansas	10,419,000	154,222,000	2,544,000
District of Columbia	.....	127,204,000	1,509,000
Florida	.....	310,502,000	7,387,000
Georgia	.....	302,483,000	1,497,000
Kentucky	5,628,000	228,333,000	815,000
Louisiana	79,822,000	226,401,000	10,481,000
Maryland	.....	245,232,000	7,715,000
Mississippi	*	170,885,000	476,000
Missouri	*	567,601,000	6,583,000
North Carolina	.....	348,154,000	402,000
Oklahoma	206,809,000	365,737,000	9,581,000
South Carolina	.....	163,927,000	509,000
Tennessee	20,000	266,320,000	328,000
Texas	427,280,000	1,096,243,000	39,382,000
Virginia	.....	316,556,000	2,575,000
West Virginia	3,847,000	176,334,000	919,000
Total South	734,025,000	5,270,757,000	93,997,000
Rest of U. S.	364,491,000	14,346,406,000	271,988,000
Total U. S.	1,098,516,000	19,617,163,000	365,986,000
Per cent South to U. S.	66.8	26.8	25.7

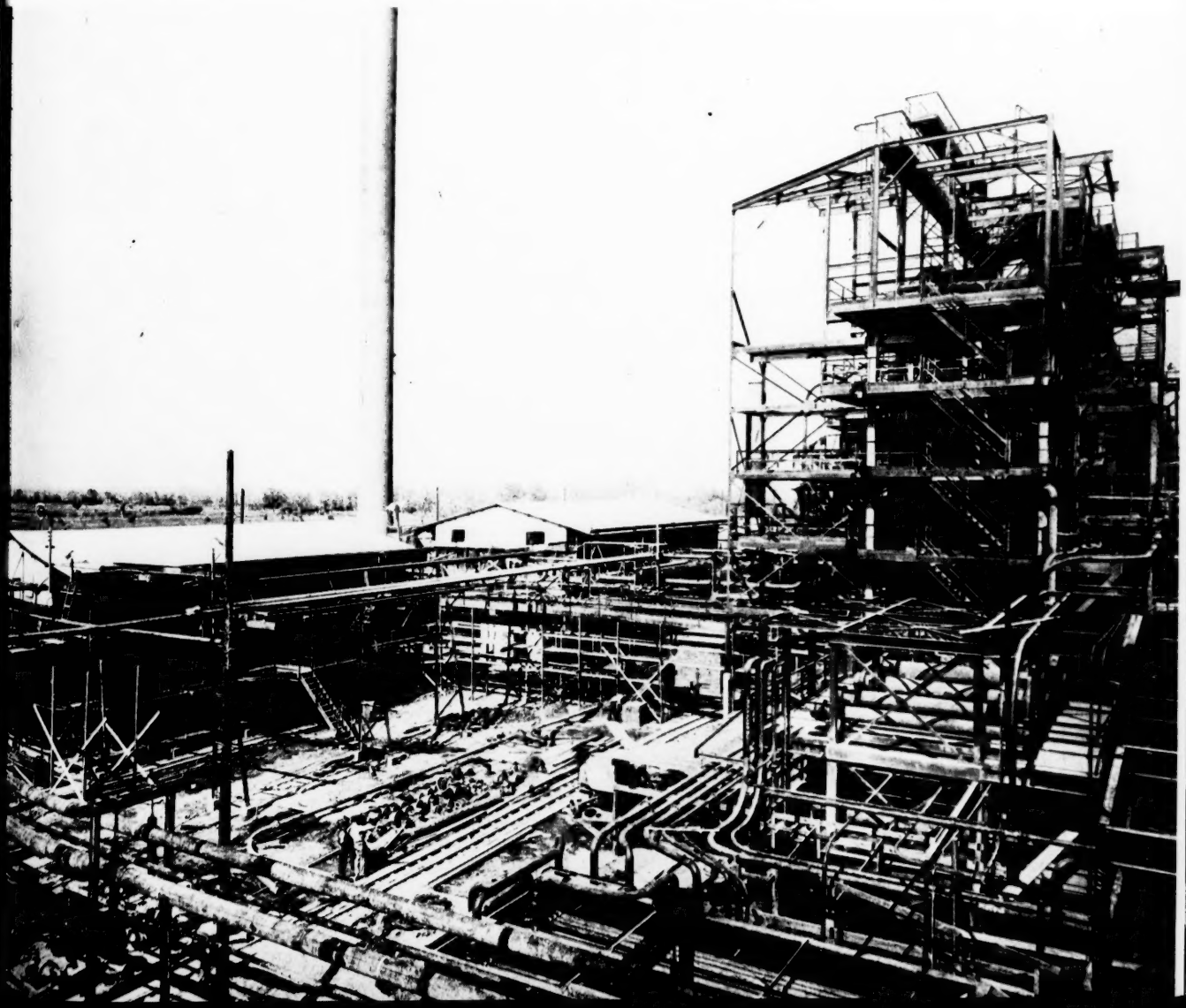
*Very small production not separately available.

Consumption of Gas Oil and Fuel Oil in the South By Industries—1935

Authority: U. S. Bureau of Mines

States	CONSUMED BY									
	Railroads Barrels	*Steamships Including Tankers* Barrels	*Gas and Electric Power Plants* Barrels	*Smelters and Mines* Barrels	*Manufacturing Industries* Barrels	*Heating Oils* Barrels	*U. S. Navy, Army, Army Transports, etc.* Barrels	*Oil Companies* Barrels	*Miscellaneous Users* Barrels	*Total* Barrels
Ala.	11,000	987,000	14,000	23,000	110,000	42,000	25,000	17,000	65,000	1,294,000
Ark.	1,645,000	120,000	30,000	20,000	78,000	149,000	96,000	238,000	168,000	2,544,000
D. of C.	1,000	5,000	303,000	.....	81,000	1,051,000	29,000	8,000	31,000	1,509,000
Fla.	946,000	1,912,000	2,418,000	238,000	809,000	635,000	168,000	24,000	237,000	7,387,000
Ga.	51,000	384,000	334,000	.....	368,000	146,000	24,000	140,000	50,000	1,497,000
Ky.	43,000	105,000	21,000	3,000	111,000	193,000	3,000	325,000	11,000	815,000
La.	2,994,000	3,359,000	312,000	.....	1,391,000	354,000	329,000	994,000	748,000	10,481,000
Md.	44,000	2,094,000	566,000	387,000	2,327,000	1,251,000	145,000	795,000	106,000	7,715,000
Miss.	6,000	87,000	52,000	.....	62,000	52,000	75,000	.....	142,000	476,000
Mo.	1,313,000	196,000	192,000	11,000	813,000	3,509,000	166,000	349,000	34,000	6,583,000
N. C.	17,000	21,000	65,000	1,000	37,000	184,000	24,000	10,000	43,000	402,000
Okla.	5,769,000	.....	205,000	27,000	107,000	265,000	.....	3,180,000	28,000	9,581,000
S. C.	7,000	216,000	55,000	.....	34,000	92,000	19,000	81,000	5,000	509,000
Tenn.	23,000	11,000	45,000	7,000	21,000	95,000	.....	6,000	120,000	328,000
Tex.	12,428,000	11,569,000	281,000	10,000	682,000	595,000	613,000	12,259,000	945,000	39,382,000
Va.	44,000	838,000	293,000	2,000	140,000	549,000	527,000	57,000	125,000	2,575,000
W. Va.	14,000	1,000	5,000	8,000	542,000	33,000	.....	298,000	18,000	919,000
Total South	25,356,000	21,905,000	5,191,000	737,000	7,713,000	9,195,000	2,243,000	18,781,000	2,876,000	93,997,000
Rest of U. S.	30,295,000	52,676,000	18,456,000	1,711,000	53,415,000	67,658,000	8,185,000	29,335,000	10,257,000	271,988,000
Total U. S.	55,651,000	74,581,000	23,647,000	2,448,000	61,128,000	76,853,000	10,428,000	48,116,000	13,133,000	365,985,000
Pct. South to U. S.	45.5	29.4	21.9	30.1	12.6	12.0	21.5	39.0	21.9	25.7

Atlantic Refining Co's $5,000,000 Port Arthur, Texas, plant—View of two furnaces and part of the main cracking tower



PETROLEUM—CROWN PRINCE OF THE SOUTH

Supplies Two-Thirds of Country's Petroleum Energy. Has Estimated Investment of $6,000,000,000 in Southern Oil Reserves and Production Enterprises

IF cotton is king in the South, then petroleum is the crown prince. Manufacturing now vies with agriculture as the outstanding business activity of the South. Rich industrial centers dot the area. In fact the $9,500,000,000 annual value of manufacturers is more than double the output of Southern agriculture. Great manufacturing enterprises convert Southern raw materials into hundreds of finished products marketed in every state of the Union and in scores of foreign countries.

In the industrial development of the South petroleum, a pre-eminently Southern product, plays it role. Without power there can be no industry. Industry without transportation could not function. Finally, not a wheel could turn, in industry or transportation, except for lubricants, derived today entirely from petroleum.

Petroleum Refining in the South, 1935 Census

States	*Number Establishments*	*Wage Earners Average, Year*	*Wages*	*Cost of Materials and Power*	*Value Products*
Alabama	1	*	*	*	*
Arkansas	5	436	$533,615	$8,507,773	$10,476,049
Georgia	2	*	*	*	*
Kentucky	8	566	740,877	11,621,587	15,787,263
Louisiana	11	4,118	5,857,866	67,830,238	82,441,397
Maryland	3	*	*	*	*
Missouri	1	*	*	*	*
Oklahoma	33	5,077	6,552,503	88,739,602	106,689,449
South Carolina ..	1	*	*	*	*
Texas	98	17,694	23,512,282	359,213,554	437,790,250
Virginia	1	*	*	*	*
West Virginia ...	4	578	705,301	9,282,518	10,305,313
Total	168	28,469	$37,902,444	$545,195,272	$663,489,721
United States ...	394	77,402	$109,714,355	$1,478,224,853	$1,838,621,913

*State figures not available without disclosing operations of individual companies. The 9 refineries in the 6 states had a combined output of approximately $36,000,000 and they spent about $32,000,000 for materials and power.

Of the more than 24,000 trillion B.t.u. of energy produced last year in the United States, 6,785 trillion B.t.u., or nearly one-third, came from petroleum, according to the American Petroleum Institute. Southern petroleum accounted for approximately two-thirds of all petroleum energy produced in the United States.

Official consumption statistics show that the South itself utilized a large share of its own petroleum power, both in industry and transportation.

Southern motor vehicles, numbering more than 7,000,000 motor cars and trucks, serving industry, commerce, and agriculture, last year consumed more than 5,250,000,000 gallons of gasoline. This was slightly in excess of one-quarter of all gasoline consumed in the United States during the year.

Latest available data indicate that the South has installed in manufacturing industries alone some 30,000 steam engines aggregating 4,000,000 horsepower and internal combustion engines capable of developing nearly 400,000 horsepower.

That a large number of the steam engines utilize petroleum fuels is evidenced by the fact that in 1935 Southern manufacturing enterprises consumed nearly 8,000,000 barrels of fuel oil.

Fuel oil also plays an important role in Southern transportation. Railroads operating in the South in 1935 used 25,356,000 barrels and steamship and tankers working out of Southern ports consumed another 21,905,000 barrels.

That a goodly portion of the electricity generated in the South stems from petroleum power is demonstrated by the fact that Southern public utility power plants in 1935 used 5,191,000 barrels of fuel oil.

Fuel oil is utilized in the South also to heat homes and public buildings, by smelters and mines, and by oil companies in their own operations. Total quantity used in 1935 amounted to 93,997,000 barrels, or 25.7 per cent of all fuel oil used in the United States during that year.

Gasoline and fuel oil are only two of the many petroleum products so vital to the further development of the New South. The importance of lubricants has already been touched upon and in addition there are hundreds of specialized

(*Continued on page* 42)

Production of Crude Petroleum and Consumption of Petroleum Products in the South

Authority: U. S. Bureau of Mines and American Petroleum Institute

States	*Crude Petroleum Production 1936 Barrels*	*Gasoline Consumption 1936 Gallons*	*Consumption of Gas Oil and Fuel Oil 1935 Barrels*
Alabama	.....	204,623,000	1,294,000
Arkansas	10,419,000	154,222,000	2,544,000
District of Columbia	.....	127,204,000	1,509,000
Florida	.....	310,502,000	7,387,000
Georgia	.....	302,483,000	1,497,000
Kentucky	5,628,000	228,333,000	815,000
Louisiana	79,822,000	226,401,000	10,481,000
Maryland	.....	245,232,000	7,715,000
Mississippi	*	170,885,000	476,000
Missouri	*	567,601,000	6,583,000
North Carolina	.....	348,154,000	402,000
Oklahoma	206,809,000	365,737,000	9,581,000
South Carolina	.....	163,927,000	509,000
Tennessee	20,000	266,320,000	328,000
Texas	427,280,000	1,096,243,000	39,382,000
Virginia	.....	316,556,000	2,575,000
West Virginia	3,847,000	176,334,000	919,000
Total South	734,025,000	5,270,757,000	93,997,000
Rest of U. S.	364,491,000	14,346,406,000	271,988,000
Total U. S.	1,098,516,000	19,617,163,000	365,986,000
Per cent South to U. S.....	66.8	26.8	25.7

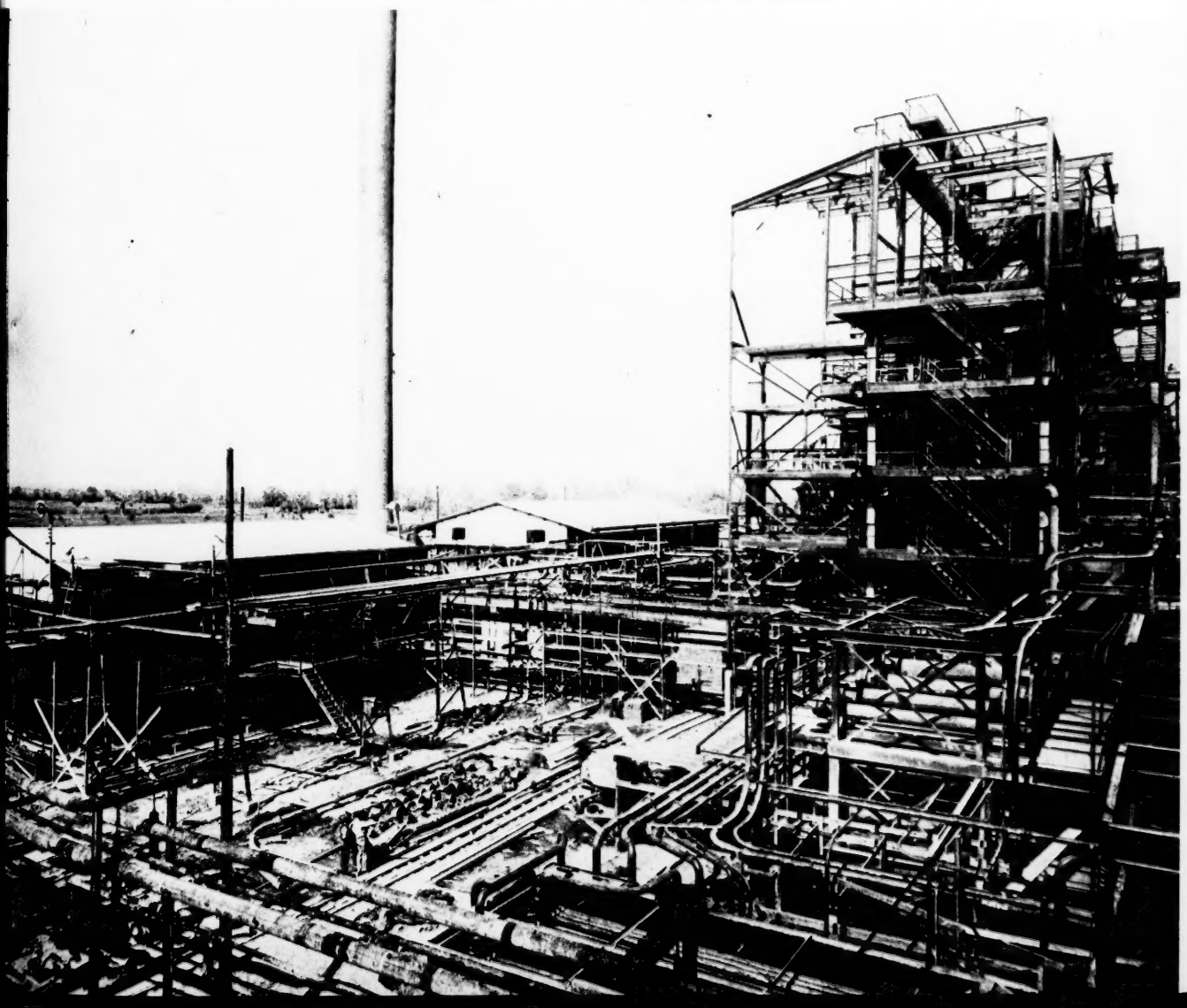
*Very small production not separately available.

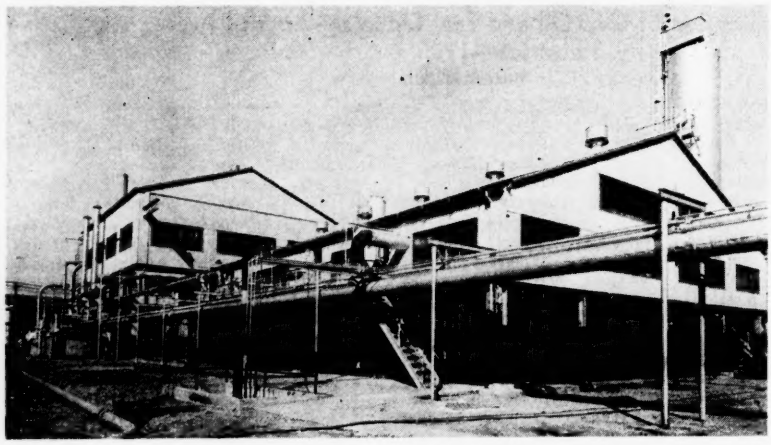
Consumption of Gas Oil and Fuel Oil in the South By Industries—1935

Authority: U. S. Bureau of Mines

States	CONSUMED BY: Railroads Barrels	Steamships Including Tankers Barrels	Gas and Electric Power Plants Barrels	Smelters and Mines Barrels	Manufacturing Industries Barrels	Heating Oils Barrels	U. S. Navy, Army, Army Transports, etc. Barrels	Oil Companies Barrels	Miscellaneous Users Barrels	Total Barrels
Ala.	11,000	987,000	14,000	23,000	110,000	42,000	25,000	17,000	65,000	1,294,000
Ark.	1,645,000	120,000	30,000	20,000	78,000	149,000	96,000	238,000	168,000	2,544,000
D. of C.	1,000	5,000	303,000	.....	81,000	1,051,000	29,000	8,000	31,000	1,509,000
Fla.	946,000	1,912,000	2,418,000	238,000	809,000	635,000	168,000	24,000	237,000	7,387,000
Ga.	51,000	384,000	334,000	.....	368,000	146,000	24,000	140,000	50,000	1,497,000
Ky.	43,000	105,000	21,000	3,000	111,000	193,000	3,000	325,000	11,000	815,000
La.	2,994,000	3,359,000	312,000	.....	1,391,000	354,000	329,000	994,000	748,000	10,481,000
Md.	44,000	2,094,000	566,000	387,000	2,327,000	1,251,000	145,000	795,000	106,000	7,715,000
Miss.	6,000	87,000	52,000	.....	62,000	52,000	75,000	.....	142,000	476,000
Mo.	1,313,000	196,000	192,000	11,000	813,000	3,509,000	166,000	349,000	34,000	6,583,000
N. C.	17,000	21,000	65,000	1,000	37,000	184,000	24,000	10,000	43,000	402,000
Okla.	5,769,000	.....	205,000	27,000	107,000	265,000	.....	3,180,000	28,000	9,581,000
S. C.	7,000	216,000	55,000	.....	34,000	92,000	19,000	81,000	5,000	509,000
Tenn.	23,000	11,000	45,000	7,000	21,000	95,000	.....	6,000	120,000	328,000
Tex.	12,428,000	11,569,000	281,000	10,000	682,000	595,000	613,000	12,259,000	945,000	39,382,000
Va.	44,000	838,000	293,000	2,000	140,000	549,000	527,000	57,000	125,000	2,575,000
W. Va.	14,000	1,000	5,000	8,000	542,000	33,000	.....	298,000	18,000	919,000
Total South	25,356,000	21,905,000	5,191,000	737,000	7,713,000	9,195,000	2,243,000	18,781,000	2,876,000	93,397,000
Rest of U. S.	30,295,000	52,676,000	18,456,000	1,711,000	53,415,000	67,658,000	8,185,000	29,335,000	10,257,000	271,988,000
Total U. S.	55,651,000	74,581,000	23,647,000	2,448,000	61,128,000	76,853,000	10,428,000	48,116,000	13,133,000	365,985,000
Pct. South to U. S.	45.5	29.4	21.9	30.1	12.6	12.0	21.5	39.0	21.9	25.7

Atlantic Refining Co's $5,000,000 Port Arthur, Texas, plant—View of two furnaces and part of the main cracking tower





Benzol Acetone Dewaxing Plant Magnolia Petroleum Co., Beaumont, Tex. The Lummus Co., New York, designing engineers and contractors

products developed by petroleum technologists to fill pressing needs in industry and agriculture.

In petroleum the South has gained more than a new—and abundant—source of power. The petroleum industry is a native industry. As such it ranks with cotton in some states as a mainstay of Southern economic welfare. Petroleum brings revenues totaling hundreds of millions of dollars annually to the South. In 1935 the value of crude oil produced by the seven Southern oil-producing states was estimated at $627,810,000, little short of the value of the South's cotton crop in that year, $704,659,000. Two-thirds of all petroleum produced in the United States comes from the rich reservoirs located beneath the fertile farm acres of Southern oil regions, which means millions of dollars in bonuses and royalties for Southern farmers.

Petroleum brought a brand-new manufacturing industry to the South, an industry which ranks at the top of all manufacturing industries in several of the Southern states.

Petroleum refineries in the United States reported a larger consumption of crude oil and larger output of gasoline in 1935 than in the peak year 1929, according to preliminary figures issued by the Census Bureau. The consumption of crude oil in 1935 amounted to 1,057,613,000 barrels and the production of gasoline reached a total of 18,505,867,000 gallons. Fuel oil output was 15,905,205,000 gallons and lubricating oils amounted to 1,274,384,000 gallons. Detailed figures as to individual state production are not available, but as an indication of the South's part in the petroleum refinery industry of the country its 168 refineries, out of a total of 394 for the country, had an annual output in excess of $699,000,000 better than one-third the value of all petroleum products, and they spent $577,000,000 for materials and supplies.

The distribution of petroleum products, both at wholesale and at retail, constitutes an appreciable portion of Southern trade, amounting in some states to more than 10 per cent of all wholesale and retail business transacted. In 1935, according to the census of that year, 9,644 Southern petroleum wholesalers sold $775,497,000 worth of petroleum products, while 67,007 service stations did a total business amounting to $538,433,000. Census statistics also reveal that Southern petroleum wholesalers and retailers do about one-fourth of the nation's petroleum business.

The Southern pipe line system, that unique method of petroleum transportation, embraces, according to latest figures, 69,978 miles or 63 per cent of the total U. S. system.

The development of this tremendous new Southern industry in the comparatively short period of a few decades required both money power and manpower. Conservatively it may be estimated that the petroleum industry investment in the South amounts approximately to $6,000,000,000, or 45 per cent of the industry's total investment.

Of the petroleum industry's total manpower of 1,000,000 workers, probably almost half are located in the South. Petroleum payrolls in the South should aggregate close to $750,000,000 annually.

Southern merchants and manufacturers count the petroleum industry among their best customers. A huge slice of the industry's annual supply bill of nearly $1,000,000,000 is expended in the South.

Last, but by no means least, petroleum taxes in many Southern states make by far the largest single contribution to the expenses of the state governments. Most important of the scores of petroleum taxes from a revenue-producing standpoint is the tax imposed on the sale of gasoline. In 1935, latest year for which complete figures are available, the South collected $205,816,000 in gasoline taxes. This was one-third of the total collected in the United States, despite the fact that the South has registered only one-fourth of the country's automobiles.

Gasoline used by motorists in Southern states is taxed more severely than elsewhere, a fact that becomes clearly evident when comparative gasoline tax rates are studied. The only three states taxing gasoline at the rate of 7 cents per gallon are located in the South—Florida, Tennessee, and Louisiana. Rates in other Southern states also run higher than the average in other regions.

The theory behind the original gasoline tax, levied at 1 to 2 cents per gallon, was to provide funds for highways. Unfortunately that theory has been discarded in many of the Southern states and gasoline tax funds are used for many purposes unrelated to highways. This deplorable development is one reason for the excessive rates now obtaining in the region. In the minds of economists who have studied the question there exists little doubt that excessive gasoline taxes have affected adversely the rate of growth in automotive transportation in high tax-states. Whether the South has anything to gain by taxing so heavily a product of an industry which is of such vital importance to its economic welfare and further industrial development remains to be seen. Evidence so far is against it.

However, it is probable that with awakening public consciousness of the adverse effects of excessive taxation, and the growing demand for greater economy in government to permit of productive use of money in the channels of trade, vastly more rapid progress will be made in the new industrial South.

63 Per Cent of Nation's Proven Oil Reserves in the South

An increase of 886,000,000 barrels of petroleum in the proven reserves of the United States on January 1, 1937, over the January 1, 1935, figure, is estimated by the American Petroleum Institute. During this two-year period, approximately 2,044,000,000 barrels were produced but discovery of new pools and development of old ones have covered this and the total reserves of the country are placed at 13,063,000,000 barrels, of which 8,242,000,000 barrels, or 63 per cent, are in the Southern oil producing states.

The increase in the South since the last estimate two years ago is 1,032,000,000 barrels compared with a decline of 146,000,000 barrels in the oil regions of the rest of the country, principally California.

"These figures," the President of the API, Mr. Axtell J. Byles, explained, "do not mean that the country has available only 13,063,000,000 barrels of oil, but that it has proved reserves up to that amount. . . . The probability is that these proven reserves constitute only a small portion of the supply which will be made avail-

(*Continued on page 76*)

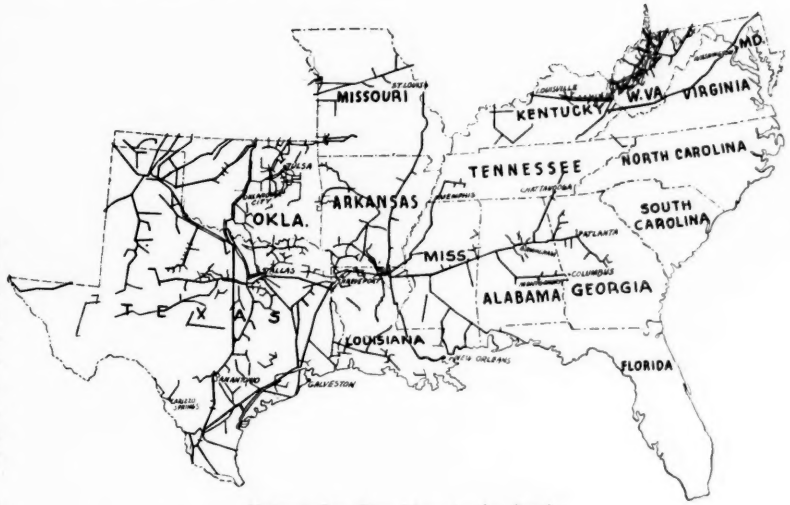
NATURAL GAS SERVES MANY SOUTHERN INDUSTRIES

70 Per Cent of Country's Output and 60 Per Cent of Consumption in the Southern States

NINE Southern states produce over 1,338,000,000,000 cubic feet of natural gas a year, or 70 per cent of the country's total output. Fourteen Southern states and the District of Columbia are consuming in excess of 1,100,000,000,000 cubic feet of natural gas a year, or 60 per cent of the country's total consumption. North and South Carolina are the only Southern states not using natural gas.

There are more than 2,093,000 domestic and commercial customers of natural gas in the South. They use in excess of 133,000,000,000 cubic feet of natural gas a year.

Consumption of natural gas in field drilling, pumping, operating gasoline plants, etc., in eight producing states of the South amounts to more than 424,744,000,000 cubic feet a year. Natural gas used for the manufacture of carbon black amounted to over 54,000,000,000 cubic feet in Louisiana and 184,470,000,000 cubic feet in Texas. Petroleum refineries of six states of the South are consuming 44,674,000,000 cubic feet of natural gas a year. In the eight Southern natural gas producing states electric public utility power plants are consuming annually more than 68,075,000,000 cubic feet of natural gas. Other industrial uses of natural gas in the South amount to more than 188,631,000,000 cubic feet a year.



Natural Gas Pipe Lines in the South
(Based on information furnished by Ford, Bacon & Davis)

Manufacturers throughout the South, and in other sections of the country wherever gas is available, are using more of this fuel than ever before, not even excepting the 1929 boom. It has long been an important source of fuel in the power field, many public utilities using it under the boilers to raise steam to drive steam engines and steam turbine driven electrical generators. There is growing use of gas as fuel for internal combustion engines in public power plants as well as for industrial operations.

Among the larger industrial uses of gas are printing and newspapers for stereotype, electrotype and linotype operation. Factories use it for metal cleaning, lithographing, forging, die casting, heat treating, japanning, porcelain enameling, or other processes. Foundries, steel mills, and glass works for melting. Dairies and breweries use it for pasteurizing, bakeries for baking. The list could be extended indefinitely.

Pipe Line Systems

The largest natural gas producing and consuming states of the South are Texas, Oklahoma, Louisiana and West Virginia.

In 1930 a great extension of pipe lines from Southern gas fields was started when more than $200,000,000 was invested to supply cities from Texas to Georgia on the east and Missouri to the the north. Since then other great pipe lines—1,000 miles or more in length, have been laid into the Middle West.

Interstate transportation and exports of natural gas from Southern fields include the following:

Kentucky to:
District of Columbia
Illinois
Indiana
Maryland
Ohio
Pennsylvania
Virginia
West Virginia

Louisiana to:
Alabama
Arkansas
Georgia
Illinois
Mississippi
Missouri
Tennessee
Texas

Mississippi to:
Alabama
Florida
Georgia
Louisiana

Missouri to:
Illinois
Indiana

Oklahoma to:
Arkansas
Iowa
Kansas
Minnesota
Missouri
Nebraska
Texas

Texas to:
Colorado
Illinois
Indiana
Iowa
Kansas
Louisiana
Mexico
Minnesota
Missouri
Nebraska
New Mexico
Oklahoma
South Dakota
Wyoming

West Virginia to:
Kentucky
Maryland
Ohio
Pennsylvania

(*Continued on page 72*)

Natural Gas Produced and Consumed

(Compiled From Latest Bureau of Mines Figures)

		1935	
	Number of Customers	*Produced Cubic Feet*	*Consumed Cubic Feet*
Alabama	26,000	.....	10,563,000,000
Arkansas	69,000	6,167,000,000	26,476,000,000
District of Columbia	137,000	.....	2,707,000,000
Florida	3,330	.....	692,000,000
Georgia	71,450	.....	8,082,000,000
Kentucky	166,000	39,738,000,000	15,826,000,000
Louisiana	158,000	249,450,000,000	151,934,000,000
Maryland	14,280	.....	784,000,000
Mississippi	34,000	9,643,000,000	8,765,000,000
Missouri	378,000	609,000,000	33,060,000,000
Oklahoma	240,000	274,313,000,000	258,598,000,000
Tennessee	42,000	.....	9,479,000,000
Texas	568,000	642,366,000,000	525,697,000,000
Virginia	5,280	.....	343,000,000
West Virginia	181,000	115,772,000,000	53,763,000,000
Total	2,093,340	1,338,058,000,000	1,106,769,000,000
United States	8,004,000	1,916,595,000,000	1,909,901,000,000

NEW INDUSTRIES FOR THE SOUTH

Paper, Chemicals, Iron and Steel Products, Leather, Knitting and Other Textile Manufacturing Lead in Interests Seeking Southern Locations

THE trend of industry to move South is more pronounced than at any time in the past, according to the annual report of the Alabama Power Company. Calling attention to the increased purchasing power in the South and its vast store of raw materials as yet scarcely touched, coupled with the over-centralization of industry in the North, there is sounded a note of optimism for the future of Alabama. Pointing out the need of a coordinated, state-wide plan of approach to prospective industries the report says "Such a program must have the benefit of wholehearted support by existing industries and all other agencies, especially by State and municipal governments and the people themselves."

23 New Industries

During 1936, 23 new industries were induced by the Alabam Power Co. to locate plants in Alabama. These industries will invest approximately $2,140,000 of new capital in the State and will have an annual payroll of over $1,159,000. They were located in 18 different communities.

The New Industries Division of the Company continued to make special studies in the chemical, leather, knitting, paper and textile industries, and definite interest is being shown in Southern locations by manufacturers of many of these commodities.

The tin plate development for the Birmingham district by the Tennessee Coal, Iron & Railroad Company, will find a growing market in the South and the report states that it is the largest single industrial enterprise announced for Alabama in many years. The Alabama Power Company will be called on to increase its power supply to the Tennessee Company for this development.

Increased Power Sales

Electric energy sales of Alabama Power Company in 1936 were 1,888,677,560 kilowatt hours, or 12½ per cent more than in 1935. While total sales of electricity to regular customers increased 23 per cent, the Company received from them only 13 per cent more electric revenue than in 1935. Gross revenues increased $1,918,328 over 1935. Principally on account of the larger volume of business, increased wages, greater steam generation and purchases of power, operating and maintenance expenses increased 15¼ per cent.

During 1936 electric users in 564 Alabama communities received their electricity directly from Alabama Power Company and those in 63 communities, who purchased their electricity at wholesale, received it indirectly. Total customer meters in active use at the end of 1936 were 123,739.

The sale of power for industrial purposes continues to be the largest part of the Company's operation. Almost 66 per cent of the total energy sold in Alabama was for industrial purposes.

Under the objective residential rate plan, further downward revisions were made in 1936, which made immediately available to residential customers more than twenty million additional kilowatt hours annually and without increase cost. Aided by these low statewide rates, sale of electrical appliances, amounting to $1,753,124 during 1936, exceeded all past records.

1,369 Miles of New Rural Lines

A total of 1,369 miles of rural lines were built in 1936. Among other costs of building these lines were $400,000 for local labor in various rural communities throughout the State. Local wiring contractors and electricians received more than $150,000 for wiring homes and premises of new rural customers and electrical appliances were sold in large volume by local dealers.

At the end of 1936 the Company had 3,561 miles of rural lines in operation, from which 15,562 customers were served at rural rates and 31,000 at urban rates. Approved for construction 1937 are 1,112 miles of additional rural lines to serve 5,196 new rural customers.

During 1936 Alabama Power Company continued its cooperation with State and Federal agencies in various soil erosion and forestry projects. One hundred and forty-six acres adjacent to its hydro plants have been reforested with slash pine and several hundred thousand additional seedlings grown in the seedling nursery located near Jordan Dam are ready for transplanting. Plans are under way to enlarge nursery facilities to produce up to one million slash pine seedlings annually, which, based on the ten year planting program, is thought to be sufficient to plant all sparsely wooded lands owned by the Company. This planting program will be preceded by a survey which will indicate proper land usage, planting requirements, costs, and fire protection for all of the Company's land in the various sections of the State. Such a program is becoming of increasing importance in soil conservation and as a source of cellulose for paper making in the South.

$7,235 a Day for Taxes

The report reveals that "Alabama Power Company is the State's largest taxpayer and with its subsidiaries, it paid taxes during 1936 in every county of the State, total payments in 1936 being $2,952,769.85. About one million dollars went into special school funds. During 1936 the Company paid a tax bill of $7,235 a day. Taxation continues to be a matter of great concern, particularly because of the adverse effect of tax increases on rates for our service, as compared with rates charged by tax-free, governmental electric systems, which are not required to act as tax collectors in addition to acting as distributors of electricity. The transfer of properties in northwest Alabama to the TVA has been costly and this is one of the ominous results of the National policy towards those who have pioneered in one of the most important and essential businesses of this area."

Government Competition

"Ability of the Company to refinance its indebtedness at lower rates of interest was forestalled by the continuing threat of Government competition, and recent stiffening of interest rates perhaps means that the opportunity may have passed for it to refinance its obligations as other utilities have done. Had it been able to do so, the Company could have saved approximately $2,000,000 per year. Inability to refinance will mean that the consumer will continue to pay in his power rate for the unfair Governmental hazard which has been created in this area."

In closing the report, President Thomas W. Martin states "There is no surer way of discouraging the additional investment of capital in a community and the location of new industry than to have capital already invested there jeopardized by Government subsidized competition and socialization."

THE RAILROADS CONTRIBUTION TO RECOVERY

Expenditures in Southern Classification $1,090,000,000 in 1936

CLASS I railroads of the United States in 1936 expended in excess of $1,000,000,000 for capital improvements to rolling stock, roadway and structures, and for fuel, materials and supplies used in connection with operations.

Total expenditures, under this classification, in the Southern regions listed amounted to $624,720,000, including $81,793,000 for capital investment in new equipment, roadway and structures, and $542,927,000 for maintenance, purchase of fuel, materials and supplies. More than $33,000,000 of capital expenditures were carried over into 1937. Total expenditures by the Southern railroads, including $465,556,000 for salaries and wages, were $1,090,276,000 during 1936.

As individual roads may operate in two regions and boundary lines for each region do not always follow state lines, for statistical purposes the entire line is assigned to the particular region in which the greater part of its operations is conducted and the total given for the South includes the following:

Pocahontas Region—Virginia and West Virginia.

Southern Region — Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee (also the small part of Louisiana east of the Mississippi.

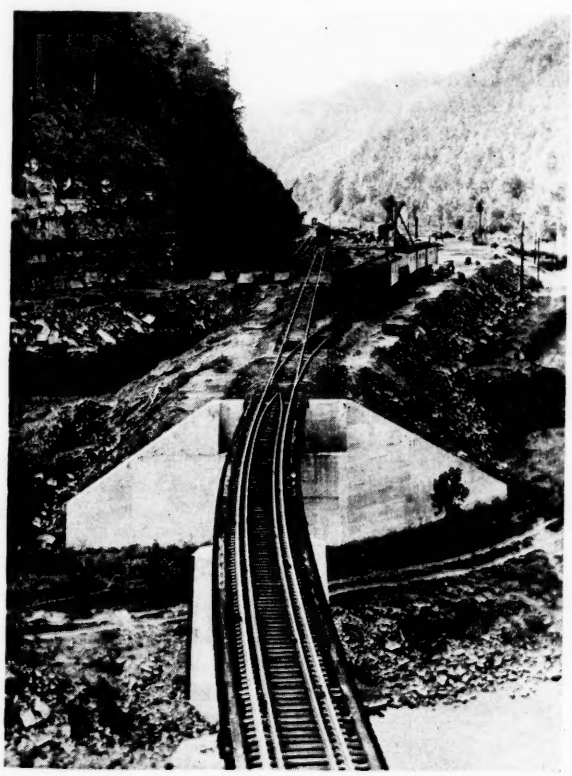
Southwestern Region — Arkansas, Louisiana (west of Mississippi River), Missouri, Oklahoma and Texas (also small parts of Kansas and New Mexico).

RAILROAD EXPENDITURES SOUTHERN REGIONS
(Calendar year 1936)

Item	*Pocahontas Region*	*Southern Region*	*Southwestern Region*	*Total*
GROSS CAPITAL EXPENDITURES:				
Equipment	$26,155,000	$6,659,000	$12,232,000	$45,046,000
Roadway and structures	14,541,000	8,068,000	14,138,000	36,747,000
Total	$40,696,000	$14,727,000	$26,370,000	$81,793,000
Unexpended authorization	$15,624,000	$7,147,000	$10,273,000	$33,044,000
MAINTENANCE EXPENDITURES:				
Purchases of fuel, materials and supplies	$39,746,000	$101,239,000	$75,646,000	$216,631,000
Expenditures for maintenance of equipment	42,697,364	101,375,002	59,043,383	203,115,749
Expenditures for maintenance of way and structures	25,203,443	55,758,542	42,218,782	123,180,767
Total	$107,646,807	$258,372,544	$176,908,165	$542,927,516
Total Payroll	$85,074,407	$235,784,994	$144,696,660	$465,556,061
Grand Total*	$233,417,214	$508,884,538	$347,974,825	$1,090,276,577

*Exclusive of unexpended authorization carried over into 1937.

New Norfolk & Western Buchanan Branch Extension of 42 miles in Virginia



The railways, according to the Review of Railway Operations by the Association of American Railroads, "made a definite contribution to economic recovery. The larger expenditures of the railway industry in 1936 meant more money put into circulation, more men employed, and more orders for factories. To place any brake upon this movement in the near future, by means of burdensome legislation or otherwise, would mean a definite backward step on the pathway to normal business levels."

For the country as a whole, the railroads' capital expenditures in 1936 for locomotives, freight and passenger cars, and also for roadway and structures totaled $298,991,000, an increase of $110,689,000 above such expenditures in 1935, and the greatest amount for any year since 1931. For equipment alone, gross capital expenditures in 1936 amounted to $159,104,000 compared with $79,335,000 in 1935. Capital expenditures for roadway and structures made by the Class I railroads in the past calendar year totaled $139,887,000 compared with $108,967,000 in 1935. The carry-over into 1937 of unexpended authorization for capital expenditures amounted to $187,693,000.

Purchases of fuel, materials and supplies of all kinds totaled $803,421,000 in 1936, an increase of $210,396,000 compared with 1935, and the greatest amount expended for such purposes in any year since 1930.

The Class I railroads in 1936 expended $1,238,000,000 for maintenance of equipment and right-of-way. This was an increase of $162,000,000 above such expenditures made in 1935. For maintenance of equipment, a total of $783,000,000 was spent in the past calendar year compared with $682,000,000 in 1935, and for maintenance of way, the expenditures in 1936 of the Class I railroads amounted to $455,000,000 compared with $394,000,000 in the preceding year.

XUM

WORLD'S LARGEST TUNG PLANTATION AND OIL MILL

South Rapidly Expanding Production of Tung Oil Heretofore Supplied by the Orient at Rate of Over 100,000,000 Pounds a Year. American Demand Requires Products of 1,000,000 Acres While We Have Only 103,000 Acres Planted So Far

IN Pearl River County, Mississippi, which the Picayune Chamber of Commerce calls the tung oil center of America, is the world's largest tung oil mill. It is owned and operated by Lamont Rowlands, whose 10,000-acre tung plantation is claimed to be the largest single planting of tung trees in the world. These trees, together with the plantings of L. O. Crosby and Sons (Goodyear Yellow Pine Co.) now give the county 63 per cent of the tung acreage of the United States. Total plantings of 103,125 acres, as of 1936 in the South, are distributed in the following states:

	Acres
Florida	17,525
Georgia	3,800
Alabama	800
Mississippi	65,000
Louisiana	15,000
Texas	1,000
Total	103,125

The demand for American tung oil, conceded to be of superior quality, requires the product of 1,000,000 acres.

Following investigation of soils and climatic conditions, Mr. Rowlands located his plantation and mill near Picayune, Miss., in which area the temperature, rainfall and soil conditions are said to nearly duplicate the native habitat of the Chinese tung nut tree. A deciduous tree, the tung nut tree withstands cold. From the third year of its growth until the twelfth the yield of the tree increases from 8 pounds of nuts per tree to about 85 pounds, at which figure the yield holds for the next 30 or 40 years. Due to the low cost of harvesting and of the extraction process, the crop has proven profitable. Another factor in its profitability is the non-perishable nature of the nuts, which may be harvested over a period of months.

China has been the only country to supply tung oil in any major quantity although efforts have been made to grow tung trees in several other countries, but owing to difference of climate and soil little success has been achieved. The United States, however, is making the most successful experiment, and the South with its increasing acreage is becoming an important producer. C. C. Concannon, chief of the Chemical Division, Bureau of Foreign and Domestic Commerce, has stated that the production of tung oil is a challenge to the South.

Farmers of the Gulf Coast region, realizing the demand for tung oil, are gradually increasing their tung tree acreage. Nearly 7,000,000 trees were planted up to 1936 in six states from Florida and lower Georgia to Texas. Production last year was 2,400,000 pounds of tung oil, but this is only about 2 per cent of the present demand by industry in this country, the Tung Oil Association of America reports.

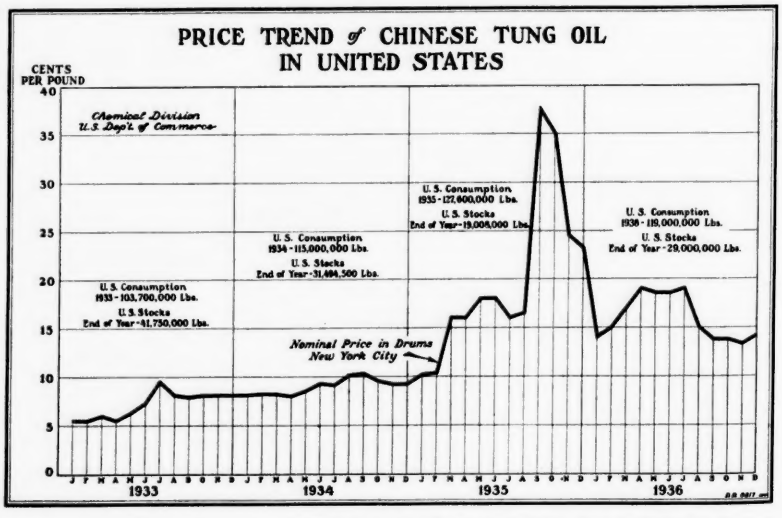
American consumption of tung oil amounted to more than $23,000,000 in 1935, practically all supplied by imports from China. Prices for several months in 1935 reached above 35 cents a pound which was exceptionally high due to a threatened shortage. Prices have ranged from 5 cents a pound in 1933 to about 15 cents a pound in 1936.

Our imports have averaged considerably above 100,000,000 pounds a year. Domestic consumption of tung oil in 1936 was 119,000,000 pounds including the following amounts for leading industrial uses:

Tung oil used in	*Pounds*
Paint and varnish	94,642,000
Linoleum and oil cloth	7,131,000
Printing ink	2,331,000

The paint and varnish industry uses approximately 85 per cent of the total amount of tung oil consumed in the United States. Tung oil has three valuable properties: It is a good waterproofing agent, it has remarkable elasticity, and natural drying qualities. New uses for the oil include the manufacture of plastics. It is now used in the manufacture of linoleum, oil cloth, raincoats, umbrellas, waterproof wallboard, electrical equipment, insulation materials, plastics, and in various parts of automobiles. By-product of tung oil making is the press-cake or meal, known to have great potentialities. At present the meal has definite value as a balanced fertilizer.

The world's largest pecan nursery is also to be found in Pearl River County. Pulpwood is plentiful. Furniture factories and other wood-using plants are operating in the county. Picayune has two natural gas fields and ample electric power supply. It is located on the main line of the Southern Railway, 54 miles from New Orleans and 25 miles from the Mississippi Gulf Coast.


PRICE TREND of CHINESE TUNG OIL IN UNITED STATES
CENTS PER POUND
40
35
30
25
20
15
10
5
0
Chemical Division U.S. Dep't of Commerce
U. S. Consumption 1933 - 103,700,000 Lbs.
U. S. Stocks End of Year - 41,750,000 Lbs.
U. S. Consumption 1934 - 115,000,000 Lbs.
U. S. Stocks End of Year - 31,494,500 Lbs.
U. S. Consumption 1935 - 127,600,000 Lbs.
U. S. Stocks End of Year - 19,008,000 Lbs.
U. S. Consumption 1936 - 119,000,000 Lbs.
U. S. Stocks End of Year - 29,000,000 Lbs.
Nominal Price in Drums New York City
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1933
1934
1935
1936

PLACE OF NAVAL STORES IN SOUTHERN FOREST SITUATION

Pulp and Paper Development Will Assure Future Pine Timber Supplies for Sustained Yields.

By

J. E. Lockwood
Naval Stores Consultant
Savannah, Ga.

THE place and importance of naval stores in our Southern forest situation are shown by the following: For more than a century our Southern pine forests have been the source of more than two-thirds of the world's supply of turpentine and rosin, the principal products of the naval stores industry.

About half of our naval stores production has been required for use by domestic soap, paper, paint, varnish and other essential industries. The remaining half has been exported for similar use in foreign countries. Therefore, a continued and dependable supply of these essential industrial materials is important to our domestic industries, our export trade, and to Southern employment and prosperity.

Some foresters and economists are fearful of the exhaustion of our timber supply in view of the large and increasing pulp wood requirements of Southern pulp and paper mills, added to the probability of an increased demand from the lumber industry. I do not believe their fears are well founded. Instead of Southern pulp and paper mills and their large investment in timber lands for their own requirements being inimical to the naval stores and other timber dependent industries, I consider them essential to the proper planning and management necessary for Southern pine forests.

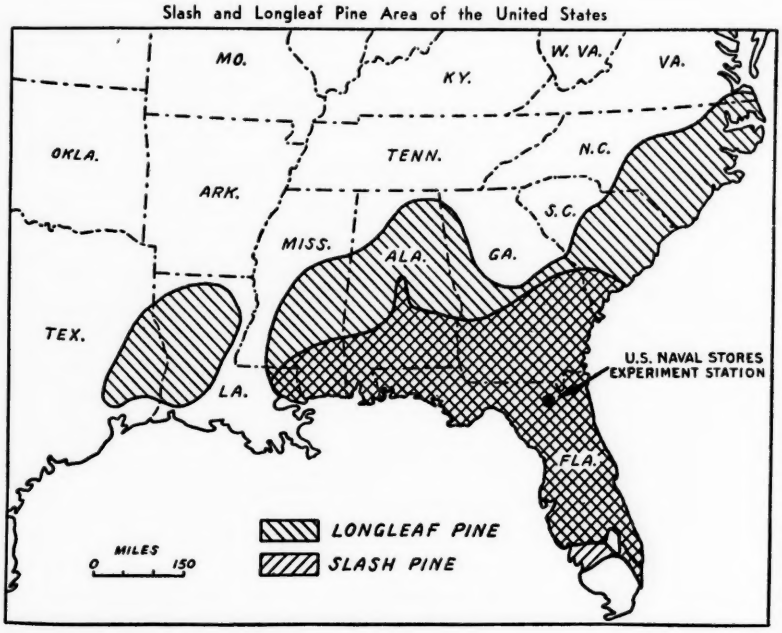
In a discussion of this subject with Dr. Charles H. Herty, our leading discoverer and demonstrator of the possible uses of Southern pine, including his original cup-system of naval stores production and his recent successful manufacture of white paper from Southern pine, he stated:

"I have long advised the reforestation of our Southern cut-over timber lands with longleaf and slash pines and strongly urged fire protection for Southern forests. I now advise working-for-turpentine all suitable timber before it is cut down for final uses, with the exception of such trees as there may be warrant for selecting and reserving for a final crop of high grade saw logs or poles. Such preliminary use of second-growth longleaf and slash pines will not endanger our pulpwood supply, as the total quantity of pulpwood available from cuttings for forestry thinning purposes, from worked-out turpentine timber when cut down, and from loblolly pines that are not suitable for naval stores production, will together provide an ample supply of pulpwood for present and proposed Southern pulp and paper mills.

Observation Fire Tower in Southeast Protected Forest Area

"With proper fire protection for Southern forests eliminating the annual burning-over of turpentine timber lands now generally practiced by gum naval stores producers, I estimate there will be an increase of approximately 15 per cent in the average yield of naval stores, with no increase in naval stores production cost, per crop of timber worked."

Slash and Longleaf Pine Area of the United States



Provide Sustained Yields

It is evident from the foregoing and the views of other forestry leaders that in multiple-use forestry and conservation by means of sustained yields, lies assurance of sufficient forest materials to fully supply our current and near future needs, while by means of the reforestation of our cut-over timberlands with slash and longleaf pines, we will be assured of ample and perpetual supplies of forest materials to provide for the continuous operation of Southern timber-using industries.

Regarding multiple-uses, the greatest single source of annual income from Southern second-growth pines is naval stores production. To date the income from naval stores production has constituted the major part and the income from all final uses the minor part, of the total income from each crop of turpentine timber. This is due to the preliminary use of turpentine timber for naval stores pro-

(*Continued on page* 80)

SWEEPING TAX CHANGES RECOMMENDED

REPEAL of the undistributed profits tax, fundamental revision of the corporation normal income and excess profits taxes, abolition of the capital stock tax, and reduction of payroll taxes, in addition to the termination of all chain store and of most sales taxes, are recommended by the Committee on Taxation of the Twentieth Century Fund. These conclusions have been reached at the end of a two-year survey conducted by a corps of 20 research specialists directed by Professor Carl Shoup, of Columbia University, under the auspices of the Fund's Special Committee headed by Thomas I. Parkinson, president of the Equitable Life Assurance Society.

In place of these taxes, the Committee recommends taxation of capital gains on an actual basis, the immediate initiation of a constitutional amendment to "insure the legality" of this form of income tax, preparation for a "genuine" excess profits tax with "high progressive" rates reaching a peak of, "perhaps between 50 per cent and 75 per cent," return on the capital, and heavier reliance on the death and gift taxes. A higher tax free rate of return should be granted to firms in "hazardous fields of enterprise." Broadening of the personal income tax base by lowering the exemptions, but without increasing the total tax burden on low income groups was previously suggested.

These changes are not suggested with a view to raising additional revenue.

Failure of Undistributed Profits Tax

The undistributed profits tax is found to be "a compromise which fails to achieve any of its objectives, except in some degree the economic aims." It is "not heavy enough to insure that all earnings will be distributed; it may not even induce the economic effects to any appreciable degree in the long run, in view of the stock dividend and stock right devices; and insofar as the corporation pays the tax instead of distributing its earnings, the tax fails in all of the aims."

It is doubted that the present tax can be materially improved by amendments. Exceptions to relieve certain types of corporations, such as those with book deficits, would be steps away from tax equality -of -stockholders -with -partnerships and proprietors, which was one of the chief aims of the undistributed profits tax.

In place of the undistributed profits tax, "provided the practical difficulties of administration can be overcome," it is recommended that individuals be required by law to value their shareholdings each year and enter the plus or minus difference for the year in their personal income tax returns.

Such values of stockholders' shares could be computed in two ways. If a stock is listed, the market value as of the end of the year could be used. If the stock is unlisted, each corporation might be required to report annually the percentage change in book value of each share.

It is further recommended that in the application of such an inventory plan, the capital losses in excess of capital gains within one year should be deductible from other income, and, furthermore, that it should be permissible to carry any remaining excess forward into subsequent years for deduction from income in those years. Until the question of constitutionality can be clarified, it might prove desirable to offer taxpayers a choice between the inventory or accrual basis suggested, and a tax on gains in full in the year of realization without the privilege of offsetting capital losses against other income or carrying such losses forward until absorbed.

In further recognition of the "doubtful constitutionality" of the compulsory inventory plan and the difficulties that would arise in connection with its administration, various other plans have been proposed as alternatives to the undistributed profits tax. The aim of each is "to achieve tax justice among stockholders and partners and individuals without bringing about the economic effects of the present undistributed profits tax." The adoption of these alternatives "warrant careful study."

A further essential step toward tax equality is to tighten the income tax law to make certain that capital gains accrued up to the time of death shall no longer "escape the income tax completely." And with the same objective it is recommended that the capital stock tax be abolished and that the rate of the corporation income tax be reduced to a level where it can be justified simply as a license or benefit tax for the privilege of doing business. Neither of the taxes is imposed on individual proprietors and partnerships and "their continuance defeats the aim of tax equality."

The principles underlying these recommendations have implications that are even more important than the attainment of tax justice between stockholders and other owners. Fundamentally, they relate "to the broader problem of the taxation of all kinds of capital gains" —that is, of profits and losses from the sale of real estate, and all other types of capital assets as well as corporate equity securities.

Capital Loss Deductions

For capital losses, as well as in connection with stocks, more liberal provisions are recommended than in the present law. Such deductions should be allowed against income from all sources. If a net loss for the year remains, it should be "carried over, year after year, until it has been completely absorbed."

To anticipate the possibility that inflation or deflation might cause extreme fluctuations in capital value, some plan should be devised to avoid the taxation of capital gains or the allowance of capital losses that are due only to a general rise or fall in the price level.

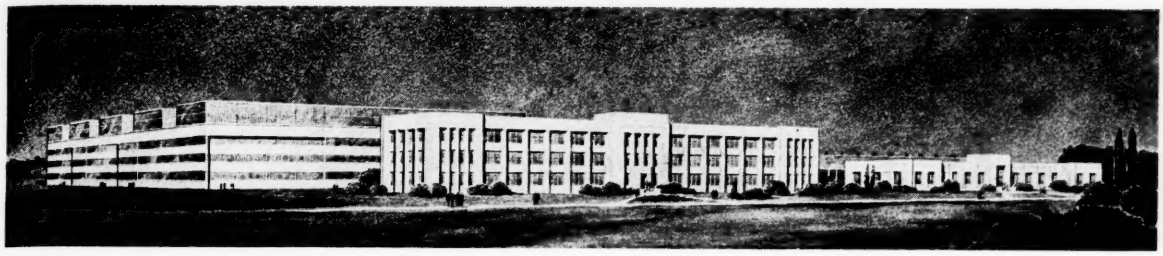
Reduce Social Security Taxes

In the field of social security taxes, suggestions are made that the Federal payroll taxes for old age benefits be reduced by placing the system upon a "current cost" basis, after the accumulation of a reasonable reserve chiefly for contingencies, and that additional reduction of the payroll taxes be made possible by contributions to the system from taxes on the general public rather than on the groups immediately concerned.

While death and gift taxes "meet the various standards of taxation better than almost any other tax than that on income," the Committee warns that a death tax that approached confiscation would greatly affect the volume of savings.

Double Taxation

Referring to what is popularly called "double taxation," it is found that many of the tax conflicts between the Federal Government, the States, and the 175,000 tax-levying jurisdictions of the United States "are part of the price that must be paid for a decentralized government." But since "the price of decentralization has been unduly high at times, and probably is still," "a non-partisan committee should be appointed by the President to formulate for the three levels of government an expenditure, debt and tax program that would eliminate as many of the conflicts and other confusions as possible," "and yet be compatible with a desirable degree of local independence and self-government."



Proposed Martin Aircraft Plant Addition

THE FLYING SOUTH

Air Passenger and Express Business Is Increasing With 9 Commercial and 30 Local Charter Services, 7 Aircraft Factories and 732 Airports and Fields

MODERN commerce and travel require continually greater speed. To fill this need, planes of nine airlines make scheduled commercial flights over the 16 Southern States. Of these lines, five operate on a national scale. Short spur lines are operated by 30 local passenger and charter services. From any one of more than 300 airports, counting municipal and commercial, air passengers can start a trip entirely by air to any point on the globe accessible by plane. Forty-eight key cities of the South are served by regular daily flights of major companies. More than 1,000,000 pounds of express were carried over Southern routes last year at rates averaging 62 cents a pound. Over 350,000 Southerners traveled by air last year.

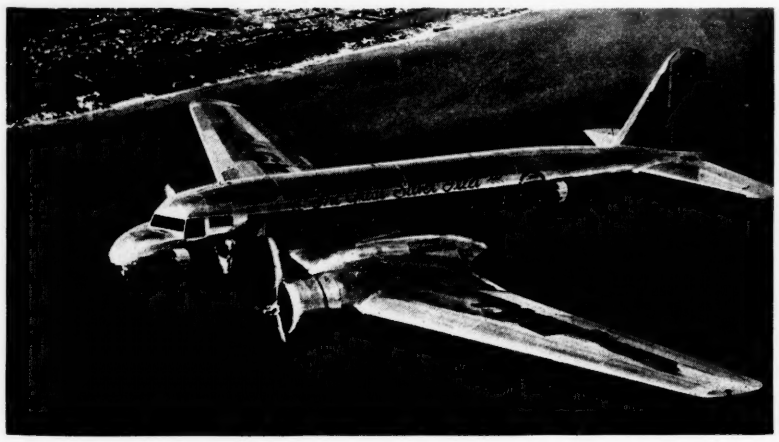
Three new air lines and one new aircraft manufacturing plant have started business in the South since January 1, 1937. Two new lines are proposed by existing companies.

Seven aircraft plants are located in the South, the largest of which, the Glenn L. Martin Company, about third in size in the country, is now working on a backlog of $12,000,000 in orders, and is spending $2,000,000 on new plant facilities doubling the capacity of its Baltimore plant.

Competition in air transport is keen. Bigger, faster, more comfortable planes are being built. More frequent flights are constantly scheduled. Overshadowing all other present developments is the work of two giant air lines, Pan American Airways, Inc., and British Imperial Airways, to master trans-Atlantic flight problems. Two Southern ports are sure to play a part in these operations.

At Baltimore, Pan American has leased a tract of land from the city, and $5,000,000 in Federal and city funds are being spent to equip the site for use as a flying boat port. Pan American, outstanding of all American lines in pioneer overseas air work, has ordered for trans-Atlantic use six new, triple-decked, 72 passenger flying boats, capable of cruising 5,000 miles at a speed of nearly 200 miles an hour. These "super clippers," half again as large as the Hawaiian and China clippers, will be powered by four motors, each of 1,500 horse-power. Each motor is of 14 cylinders, of radial type, of a new design nearly twice the size of present "clipper" motors. For the first time in airplane construction, it is declared, access will be provided to the mechanical plant, and to each of the motors from a companionway in the wing. A crew of eight will be required to man each of the new planes now under way in Boeing Company's hangars. Each ship will weigh between 40 and 50 tons.

One of Eastern Air Line's 14-Passenger Ships Reaching 11 Southern States.



AIRWAY AND AIRPORT PROJECTS IN THE SOUTH, 1936

States	Number of Sites	Cost*
Alabama	14	$1,424,000
Arkansas	4	240,000
District of Columbia	1	265,000
Florida	49	2,266,000
Georgia	17	1,206,000
Kentucky	3	154,000
Louisiana	7	480,000
Maryland	2	129,000
Mississippi	20	1,136,000
Missouri	7	717,000
North Carolina	12	1,235,000
Oklahoma	6	314,000
South Carolina	9	1,189,000
Tennessee	8	3,406,000
Texas	17	670,000
Virginia	11	360,000
West Virginia	7	577,000
Total	194	$15,768,000

*Includes municipal, state and federal funds.

TOTAL AIRPORTS AND FIELDS IN THE SOUTH

States	Municipal	Auxiliary	Dept. Comm.*	Army, Navy, etc.	Commercial	Total
Alabama	9	15	7	3	2	36
Arkansas	15	8	5	0	2	30
Dist. of Col.	1	0	0	2	0	3
Florida	58	56	4	13	13	144
Georgia	23	17	13	1	2	56
Kentucky	7	7	3	1	0	18
Louisiana	11	9	3	4	3	30
Maryland	2	1	1	7	8	19
Mississippi	13	12	6	1	0	32
Missouri	11	4	13	4	6	38
North Carolina	13	5	3	1	4	26
Oklahoma	20	8	7	1	6	42
South Carolina	10	6	4	5	2	27
Tennessee	10	6	8	0	2	26
Texas	56	29	25	15	10	135
Virginia	9	15	8	5	8	45
West Virginia	8	12	0	1	4	25
Total	276	210	110	64	72	732

*Department of Commerce fields are those erected by this agency as emergency or intermediate fields, almost all having air beacons, either radio beam, or light beams, and identifying signals. Army, Navy, and other fields include State properties, and about a dozen scattered private fields.

Auxiliary ports include a limited number now under construction. See table of Airway and Airport projects.

(Continued on page 82)

XUM

FACTORY LIGHTING

Modern Practices That Increase Efficiency and Lower Cost

By
Dean M. Warren
General Electric Company
Nela Park Engineering Department

FACTORY lighting has undergone a gradual transition during the past three decades. Before the war, local lighting, consisting of units located at or attached to individual machines was used. During the war, however, in an effort to increase employee output when maximum production was so necessary, someone decided to try giving the workers more light and the general lighting system consisting of units mounted at the ceiling and properly spaced to provide uniform illumination throughout the work area came into being. And, contrary to general belief, this lighting brought about production increases that more than offset the additional cost required to provide it.

General lighting is widely used throughout the industrial work-world and is a satisfactory lighting solution for most factory operation. Not all, however, because researches in seeing indicate that some eye tasks performed in industry today require higher levels of illumination for quick, accurate seeing than can be economically provided by the general lighting system alone. Such lighting has to be tailored to the job. It is designated as General lighting-Plus and as the name implies consists of a general system supplemented by local lighting over a restricted area.

Such lighting is not a return to the old pre-war practice of hanging a drop cord and a lamp wherever needed throughout the shop. Such a system provided considerable light on the work but left the room in comparative darkness. Present practice requires first of all that there be general lighting throughout the work area and "plus" lighting at those points where the seeing task is both severe and prolonged. This "plus" lighting may either be provided by equipment located at or near the ceiling and so directed as to build up the illumination at the point required or by units attached directly to the machine.

It is a matter of common experience that certain seeing tasks are harder than others. Everyone has an appreciation that small objects are harder to see than large ones, that poor contrast and dark backgrounds make seeing difficult. The desirable quantity of light for any particular installation, therefore, depends upon actual conditions, such as the accuracy of the operation, the fineness of the detail to be observed, the color of the goods worked on or handled, etc.

Many installations supplying 25 to 50 footcandles of general lighting are now in use with "plus" lighting of from 100 to 250 footcandles. These have proved to be profitable and practical as it is found that the benefits derived more than offset the slight additional cost of operating such a system.

Supplementary Lighting System Produces 100 Footcandles at the Tool

Ware Shoals Manufacturing Co., Ware Shoals, S. C.
Twenty footcandles of general lighting provided by units with 300-watt lamps and spaced 6 x 10½ feet apart.

Lighting values of this order can be provided economically today because of the progress the electrical industry has made. The cost of energy, equipment and lamps has been constantly decreasing; lamp efficiencies, too, have been materially increased. The lighting dollar now purchases ten times as much as it did twenty-five years ago and twice as much as it did only ten years ago.

In addition to its regular MAZDA lamps, the General Electric Co., provides a new source of illumination in the factory—the Type H Mercury lamp. The lamps are tubular in shape, the 250-watt size being fitted with a standard medium screw base, the 400-watt size with a mogul screw base. These lamps consist essentially of two main electrodes located at opposite ends of a glass tube in which the mercury that maintains the arc is vaporized. Within this glass tube is also a small amount of pure argon gas which serves as a conducting medium to facilitate starting of the arc before the mercury is vaporized.

The smaller of the two mercury sources may be operated in any position. The 400-

(*Continued on page* 72)

AN ANNOUNCEMENT

by

SMOKELESS COAL CORPORATION

This new central sales organization has established offices at NUMBER ONE BROADWAY, NEW YORK, and is now selling and distributing in all markets Smokeless Coals from the Greenbrier, New River, Pocahontas, Tug River and Winding Gulf Districts of West Virginia and Virginia. It is prepared to serve all wholesalers, retailers and consumers through its sub-agents representing their respective producers:

SUB-AGENTS	PRODUCERS
Amherst Fuel Company	Star Coal & Coke Company
The Berwind-White Coal Mining Company	New River & Pocahontas Consolidated Coal Company
Carter Coal Company, Inc.	Carter Coal Company, Inc.
Central United Coal Company Hanna Coal Company	Empire Coal & Coke Company
Chicago, Wilmington & Franklin Coal Company General Coal Company	Crab Orchard Improvement Company Crozer Coal & Coke Company Page Coal & Coke Company Upland Coal & Coke Company
Island Creek Coal Sales Company	Pond-Creek Pocahontas Coal Company
Johnstown Coal & Coke Company	Greenbrier Smokeless Coal Company Johnstown Coal & Coke Company
Knight Products, Inc.	Raleigh Coal & Coke Company
The Koppers Coal Company	The Koppers Coal Company
Maryland Coal & Coke Company	Maryland New River Coal Company
New River Coal Company	Scotia Coal & Coke Company Slab Fork Coal Company South Side Company
S. J. Patterson Company	Weyanoke Coal & Coke Company
Pocahontas Fuel Company, Inc.	Booth-Bowen Coal & Coke Company The Pocahontas Corporation Pocahontas Fuel Company, Inc. Pulaski Iron Company
Red Jacket Coal Sales Company	Red Jacket Coal Corporation
Sovereign Pocahontas Company C. H. Sprague & Son Company	Price Hill Colliery Company
White Oak Coal Company	New River Company

This corporation and all sub-agents listed above will continue to distribute Smokeless Coal under the individual names or trade marks used by the producers in the past.

The mines marketing their output through this central agency have a total capacity of 35 million tons per annum, and are equipped to furnish Smokeless Coal in all standard sizes for household, commercial and industrial use.

SMOKELESS COAL CORPORATION

One Broadway . . . New York City

XUM

PRIVATE BUILDING INCREASES

RENEWED activity in Southern Construction was evident in April as awards mounted to $76,747,000. This is an increase of $20,000,000 over the work initiated in the preceding month and brought the total for the year to $266,781,000, based on reports of the DAILY CONSTRUCTION BULLETIN.

Revival of expansion in the private power industry was one of the features of the April work. As municipalities in the Tennessee Valley launched programs for systems to distribute TVA power, private power interests in Tennessee and other sections prepared for expanding facilities.

Building projects were largely responsible for the increase. The $23,659,000 in contracts for buildings, such as apartment houses and hotels, bank and office structures, churches, stores, and residences in April more than equalled the total for any month since January of 1936. Dwelling construction accounted for $13,606,000. Apartment and hotel work $4,437,000 and stores $3,690,000.

Road construction, which had been steadily diminishing, showed strength in April with a total valuation of $18,359,000, the highest in the past twelve months. The $2,341,000 value for new sewer and water works projects was greater than the totals for either February or March.

Compared with the first four months of last year, construction awards show a decrease of $34,500,000 up to the last week in April. Shrinkage of Governmental and school construction, which this year amounts to but one-half of that of the comparable period of 1936, and lagging road construction, now running about one-third behind that of last year, caused the decline. Although industrial work dropped slightly, private building work has more than doubled the amount undertaken in 1936.

Contracts for industrial construction in April aggregated $20,481,000, or $2,500,000 more than the March total and exceeded by more than $5,000,000 the awards during April, 1936.

A $2,000,000 steam electric plant proposed in TVA territory by the Tennessee Electric Co. is subject to approval of the State Railroad and Public Utility Commission.

Southern Construction, by States

	First Four Months, 1937		April, 1937	
	Contracts Awarded	Contracts to be Awarded	Contracts Awarded	Contracts to be Awarded
Alabama	$ 9,894,000	$ 58,514,000	$ 3,965,000	$ 13,075,000
Arkansas	2,855,000	8,412,000	207,000	699,000
District of Columbia	17,365,000	37,592,000	3,910,000	1,353,000
Florida	25,569,000	49,111,000	6,712,000	11,348,000
Georgia	11,601,000	46,728,000	4,381,000	16,063,000
Kentucky	13,208,000	23,867,000	2,709,000	3,245,000
Lousiana	11,118,000	54,805,000	5,806,000	20,994,000
Maryland	27,235,000	101,049,000	5,528,000	65,328,000
Mississippi	12,537,000	60,101,000	3,781,000	10,117,000
Missouri	20,910,000	73,860,000	3,716,000	29,011,000
North Carolina	18,135,000	73,968,000	4,820,000	15,329,000
Oklahoma	6,060,000	25,563,000	1,286,000	4,456,000
South Carolina	6,779,000	33,611,000	3,099,000	6,459,000
Tennessee	14,742,000	47,862,000	3,416,000	11,951,000
Texas	45,585,000	169,461,000	16,043,000	44,944,000
Virginia	17,248,000	68,868,000	6,050,000	28,378,000
West Virginia	5,940,000	57,685,000	1,318,000	16,804,000
Total	$266,781,000	$991,057,000	$76,747,000	$299,554,000

Southern Construction Activity

	First Four Months, 1937		April, 1937	
	Contracts Awarded	Contracts to be Awarded	Contracts Awarded	Contracts to be Awarded
General Building				
Apartments and Hotels	$ 11,900,000	$ 19,688,000	$ 4,437,000	$ 4,648,000
Association and Fraternal	631,000	2,068,000	223,000	731,000
Bank and Office	3,846,000	10,957,000	1,216,000	4,948,000
Churches	1,042,000	4,892,000	487,000	1,819,000
Dwellings	31,379,000	22,096,000	13,606,000	8,019,000
Stores	11,418,000	14,489,000	3,690,000	4,021,000
	$ 60,216,000	$ 74,190,000	$23,659,000	$ 24,186,000
Public Buildings				
City, County Government and State	$ 23,289,000	$101,304,000	$ 5,930,000	$ 23,038,000
Schools	14,563,000	52,529,000	4,164,000	20,956,000
	$37,852,000	$153,833,000	$10,094,000	$43,994,000
Roads, Streets and Paving	$ 51,114,000	$347,906,000	$18,359,000	$140,204,000
Industrial and Engineering				
Drainage, Dredging and Engineering	$ 9,919,000	$ 45,544,000	$ 1,099,000	$ 3,730,000
Filling Stations, Garages, etc.	1,956,000	2,512,000	714,000	653,000
Industrial Plants	92,755,000	334,622,000	20,481,000	82,208,000
Sewers and Waterworks	12,969,000	32,450,000	2,341,000	4,579,000
	$117,599,000	$415,128,000	$24,635,000	$91,170,000
Totals	$266,781,000	$991,057,000	$76,747,000	$299,554,000

Both Chattanooga and Memphis are going forward with important distribution systems. The first substation of the $6,800,000 Memphis system is now under construction. Bonds in the amount of $100,000 are soon to be sold to permit engineering studies to start for the $8,000,000 Chattanooga project. The power Committee of Knoxville, Tenn., seat of the TVA, recommended resumption of work on the North Knoxville units of a power distribution system to be financed by a PWA fund of $2,600,000.

The Potomac Edison Company's $3,000,000 30-kilowatt turbine addition to its Cumberland, Md., plant is under way. In the Southwest, the Dallas Power & Light Co. again started on its Mountain Creek power project.

The Pinnacles of Dan electric generating plant now under construction for the City of Danville, Va., is the first major project of its kind in the Virginia area, although other cities in that State are proposing such plants. The Appalachian Power Co. announced its intention to build a power line in the Ceres section of Virginia, while the Wheeling Electric Co. made plans for a $250,000 substation. Virginia Electric and Power Co., Richmond, made it known that in 1938 its construction program would cost $4,000,000.

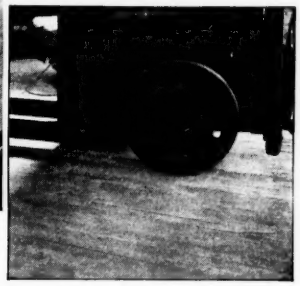
Developments in the Southern paper manufacturing field included news that Hollingsworth & Whitney Co., of Boston, were making investigations with the possible view of establishing a plant at Mobile. The location of a pulp and paper mill at Bude, Miss., by the United States Lumber Co. looks probable. Gov. Hugh White announced a $15,000,000 investment for a Southwest Mississippi paper mill industry. Work on the $5,000,000 Charleston, S. C., plant of the West Virginia Pulp and Paper Co. is advancing and it is expected manufacturing operations will begin before July. This company will extend the steam generating facilities of its Luke, Md., plant.

NORTHERN HARD

MAPLE

THE LONGEST-WEARING *Comfortable* FLOOR!

Under heavy industrial use —with power trucks constantly moving heavy loads —Hard Maple also demonstrates its remarkable wearing qualities.



This Punishment to Bowling Alleys Shows the Way to Million-Dollar Savings in Industry!

Wham! As so often happens, a 16-lb. ball hits the floor at 20 miles an hour. That's punishment! But look at the floor where the ball struck. There's no split, no splinter, no dent! For it's Northern Hard Maple that ball bounced on. Ask the manager.

"Sure," he'll probably say. "Specialists always use Hard Maple in bowling alleys—and for the pins. Hard Maple is the one material that will stand up under that pounding year after year."

Note *where* Hard Maple is used in bowling alleys. (1) The 12 to 16 feet *before* the foul line (where the bowler runs and slides); (2) From 13 to 16 feet *after* the foul line (where the ball hits the floor); (3) From 4 to 8 feet at the end (where the ball strikes the pins)—in other words, wherever real wear occurs.

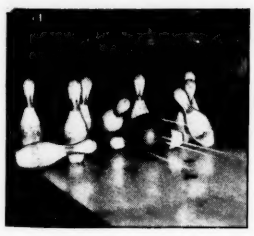
Industry can make million-dollar savings by flooring with Hard Maple—for countless plants have proved that this harder hardwood demonstrates the same stamina, same economy, under severe industrial use. So tough-fibred, so tight-grained, its resistance to indentation and abrasion is truly remarkable. Many years of service cause no splinters, slivers, or ridges—this *harder* hardwood stays smooth.

This non-slippery smoothness also means *exceptional sanitation* (no pits to hold dust)—*reduced cleaning costs* (brushing instead of scrubbing)—and *speeded-up traffic.* Further, Hard Maple's warmth, dryness and resilience *reduce fatigue* and favorably affect workers' efficiency. And always, it simplifies alterations and offers low maintenance cost.

Before building or remodeling, be sure to investigate **MFMA*** Northern Hard Maple—the *longest-wearing comfortable flooring*—available in strips or blocks. Consult your architect.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1797 McCormick Building, Chicago, Illinois

See our catalog data in Sweet's, Sec. 17/66.
Write us for folder on Heavy-Duty Finishes.



17,000 *smashes like this! A leading manufacturer guarantees his Hard Maple bowling pins not to chip, split or splinter for* 1,000 *games (average* 17 *"rolls" each).*

Hard Maple floors, easily cleaned and creating no dust of their own, aid the cleanliness so important in the Elgin Watch timing room.

Floor *with* Maple

***MFMA**—This trade-mark on Maple Flooring guarantees that it conforms to the exacting grade standards of the Maple Flooring Manufacturers Association. It protects you against species substitution and inferior grade. It assures you of *genuine* Northern Hard Maple. Look for it on the flooring you buy.

Representative Projects in the South Last Month

Contracts Awarded

Ala., Birmingham—All-States Life Insurance Co.
Printing Building; A. J. Honeycutt & Co., Contr. $100,000

Ala., Mobile—Alabama Naval Stores Co.
Plant; M. B. Harper, Contr. 125,000

Ala., Mobile—Smith's Bakery, Inc.
Plant Expansion; P. M. Bost, Contr. 100,000

Ala., Tuscaloosa—City
City Hall; Upchurch Construction Co., Montgomery, Contr. 164,000

D. C., Washington—District Commissioners
High School Additions; Harwood-Nebel Construction Co., (low bidder) 396,000

D. C., Washington—U. S. Engineer
Dredging (Harbor); Norfolk Dredging Co., Norfolk, Va., Contr. 154,000

Fla., Miami Beach—M. C. Laskey, Pres., Carlton Building Corp.
Hotel 125,000

Fla., West Palm Beach—Palm Beach County
Bridge; E. H. Latham Co., Miami, Contr. 546,000

Ga., Atlanta—Christ the King Church
Building; Griffin Construction Co., Contr. 190,000

Ky., Lexington—City
Junior High School; Gilson-Taylor Co., (low bidder) 277,000

La., Baton Rouge—Louisiana Highway Commission
Road (LaFourche Parish); Forcum-James Co., Dyersburg, Tenn., Contr. 168,000

La., Baton Rouge—Standard Oil Co.
Lubricating plant; M. W. Kellogg Co., New York, Contr. (propane dewaxing plant) 2,700,000

La., Columbia—Caldwell Parish Police Jury
Courthouse and jail; Nile E. Yearwood, Nashville, Contr. 119,000

La., Monroe—Ouachita Parish School Board
Gymnasium; Salley and Ellis Monroe, Contr. 103,000

La., New Orleans—Charity Hospital of Louisiana
Main Building foundation; R. P. Farnsworth & Co., (low bidder) 715,000

La., Port Allen—West Baton Rouge Parish School Board
High School; Caldwell Bros. and Hart, New Orleans, Contr. 146,000

Md., Baltimore—Glenn L. Martin Co.
Engineering and Assembly buildings; C. W. Schmidt, (low bidder) 2,000,000

Miss., Vicksburg—Bureau of Public Roads
Viaduct; Keliher Construction Co., Dallas, Tex., (low bidder) 130,000

Mo., Jefferson Barracks—Veterans Administration
Dining Hall; G. S. Alberici, St. Louis, (low bidder) 150,000

Mo., North Kansas City—Clay County Suburban Water Association.
Water system; National Cast Iron Pipe Co., Birmingham, Ala., (low bidder) 171,000

Mo., St. Louis—St. Stephens Evangelical Church
Building; Kellerman Contracting Co., Contr. 110,000

N. C., Durham—North Carolina College for Negroes
Dormitory Library, Auditorium; William Muirhead Construction Co., Contr. 159,000

N. C., Raleigh—State Highway and Public Works Comsn.
Road; (Tyrrell County); Brown Paving Co., Lexington, Contr. 108,000

Okla., Oklahoma City—State Highway Commission
Road; (Bryan County); S. O. Maxey & Co., Durant, Contr. 122,000

S. C., Greenville—Board of Education
High School; Potter and Shackelford, Inc., Greenville, Contr. 420,000

Tenn., Nashville—Dept. of Highways and Public Works
Road; H. E. Wolfe Construction Co., St. Augustine, Fla., Contr. 201,000

Tenn., Nashville—Housing Division
Housing project; Central Contracting Co., Dallas, Tex., Contr. 1,277,000

Texas—Panhandle Eastern Pipe Line Co., Kansas City, Mo.
Pipe Line; National Tube Co., Pittsburgh, Pa., and A. O. Smith Corp., Milwaukee, Wis., Pipe Contrs. 4,500,000

Tex., Austin—Lower Colorado River Authority
Generator, turbine; S. Morgan Smith, York, Pa., (low bidder) 108,000
Transformers; Pennsylvania Transformer Co., Pittsburgh, Pa., (low bidder) 143,000

Tex., Dallas—Apartment Service Co., Inc.
Office Building; Henger Construction Co., Contrs. 1,250,000

Tex., Gainesville—Board of Education
Junior High School; O. K. Johnson, Waco, Contr. 143,000

Tex., Galveston—U. S. Engineer
Dredging (Galveston Channel); Standard Dredging Co., New York, (low bidder) 182,000

Tex., Henderson—Rust County
Road; Uvalde Construction Co., Dallas, Tex., Contr. 159,000

Tex., Houston—Second National Bank Building
Air Conditioning; Dixie Heating and Ventilating Co., Contrs. 250,000

Tex., Houston—Southwestern Bell Telephone Co.
Exchange; Fretz Construction Co., Contr. 238,000

Tex., San Antonio—Santa Rosa Hospital
Nurses Home addition; H. H. Moeller, Contr. 112,000

Tex., Sulphur Springs—City
Power Plant; Brown and Root, Inc., Contr. 200,000

Va., Danville—City
Power Plant Equipment; General Electric Co., Schenectady, N. Y., Contr. 165,000

Va., Kecoughtan—Veterans Administration
Hospital Building; Virginia Engineering Co., Newport News, Contr. 694,000

Va., Norfolk—Navy Department
Machine Shop (Naval Operating Base); William Muirhead Construction Co., Durham, N. C., Contr. 102,000

Va., Richmond—Board of Education
High School; T. A. Loving & Co., Goldsboro, N. C., Contr. $320,000

W. Va., Fairmont—Continental Coal Co.
Coal Washing Plant; Jeffery Manufacturing Co., Columbus, Ohio 150,000

Proposed Construction

Fla., Fort Lauderdale—Charellem Corp.
Hotel Addition; Roy T. Franz, Inc., Archt., Miami Beach, Jorgensen & Schreffler, Engrs., Miami $225,000

Fla., Miami Beach—E. M. Bristow
Building 200,000

Fla., Miami Beach—S. S. Kresge
Estate; C. P. Schoeppel, Archt. 150,000

Ga., Columbus—Georgia Power Co., Atlanta
Underground Electric System 600,000

Ga., Valdosta—Glidden Co., Cleveland, Ohio
Plant 200,000

Ky., Berea—Berea College
Academic Building 195,000

Ky., Eddyville—State
Penitentiary Improvements; John L. McDermott, Fort Thomas, Archt. 500,000

Ky., Owensboro—Davies County Distilling Co.
Warehouse; Sprinkler System 210,000

La., Baton Rouge—Solvay Process Co., New York
Chlorine Plant 1,000,000

La., Lake Charles—Swift and Co., Chicago
Meat Packing Plant 500,000

La., New Orleans—Sewerage and Water Board
Pumping Station 215,000

La., Shreveport—Compressed Industrial Gases, Inc.
Plant; R. C. Everson, Chicago, Engr. 150,000

Md., Cumberland—Potomac Edison Co.
Plant Expansion—General Electric Co., Schenectady, N. Y., Combustion Engineering Co., New York 3,000,000

Md., Curtis Bay—E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.
Sulphuric Acid Recovery Plant 2,000,000

Miss., Cleveland—Mississippi Chinese Association
Religious, Educational Center; R. W. Naef, Archt., Jackson 160,000

Mo., Kansas City—Sheffield Steel Corp.
Expansion Program 2,000,000

Mo., St. Louis—Board of Public Service
Armory Superstructure; Albert Osburg, Chief Archt. 1,250,000

Mo., St. Louis—St. Louis Public Service Co.
Track and Building Improvements 2,028,000

N. C., Burlington—Burlington Mills, Inc.
Expansions 1,160,000

N. C., Charlotte—Belk's Department Store
Addition 300,000

N. C., Charlotte—Johnson C. Smith University
Girls' Dormitory 125,000

N. C., Charlotte—Howard M. Wade and John M. Robinson
Office Building 100,000

N. C., Southern Pines—Pine Needles Inn
Addition 130,000

Okla., Tulsa—Claude Burt, Bartlesville
Apartment 100,000

Tenn., Memphis—Immaculate Conception Church
Building; Regan and Weller, Archts. 130,000

Tenn., Memphis—William R. Moore Scholastic Foundation
School of Technology 200,000

Tenn., Nashville—Gray and Dudley Co., Foundry
Expansion Program 400,000

Tenn., Nashville—Tennessee Electric Power Co.
Steam Electric Plant 2,000,000

Tex., Corpus Christi—Barnsdall Refining Co., Tulsa, Okla.
Oil Terminal; Pipe Line 500,000

Tex., Corpus Christi—Sherman Building
Addition; Brock and Roberts, Archts., W. E. Simpson, Struc. Engr., L. D. Royer, Mech. Engr. 100,000

Tex., Dallas—City
Water System Improvements; Myers, Noyes and Forrest, Engrs. 200,000

Tex., Dallas—Cliff Temple Baptist Church
Building 150,000

Tex., Dallas—J. D. Gillespie
Apartments; Fooshee and Check, Archts. 500,000

Tex., Dallas—Shell Pipe Line Co., St. Louis
Pipe line 500,000

Tex., Dallas—Western States Grocery Co.
Warehouse 121,000

Tex., Gladewater—General American Oil Corp., Shreveport, La.
Gasoline plant enlargement 200,000

Tex., Lubbock—South Plains Corp.
Office Building; Anton F. Korn, Dallas, Archt. 500,000

Tex., San Antonio—Plaza Hotel
Air Conditioning; Leo S. Weil and Walter B. Moses, Consult. Engrs., New Orleans 100,000

Tex., San Antonio—Sears, Roebuck and Co.
Building Improvements 200,000

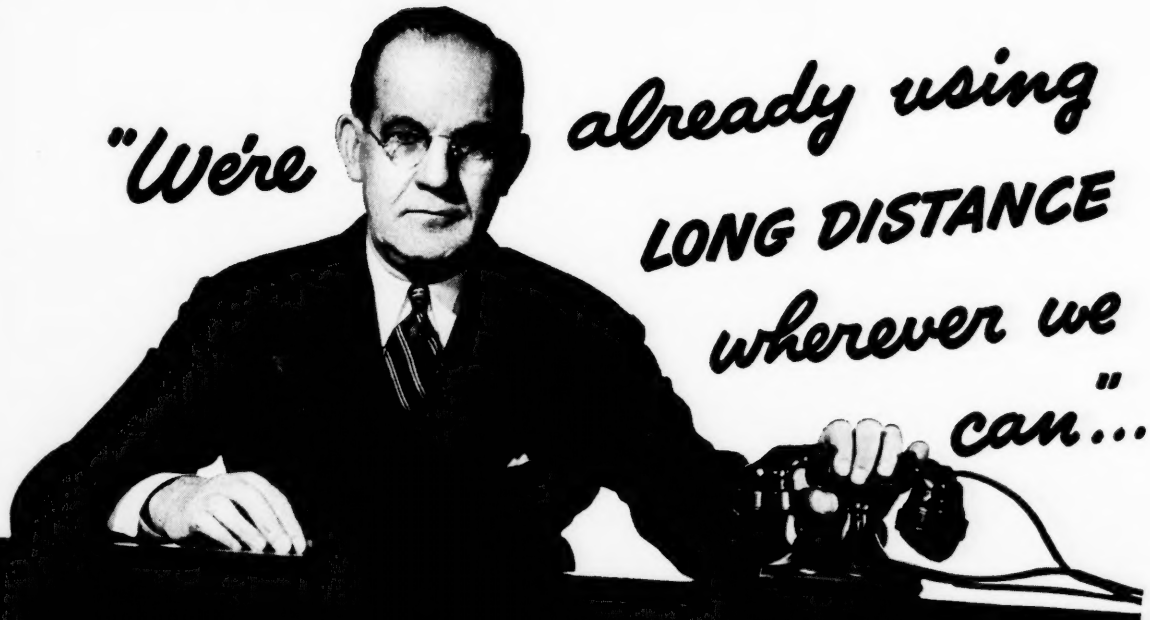
Virginia—Virginia Electric and Power Co., Richmond
Construction Program 4,000,000

Va., Abingdon—Barnhill Hotel Corp., Bristol
Hotel Conversion 100,000

W. Va., Huntington—West Virginia Rail Co.
Office Building; Meanor and Handloser, Charleston, Archts. 150,000

W. Va., Wheeling—City
Water Main Replacement 203,000

W. Va., Wheeling—Wheeling Electric Co.
Substation 250,000



"We're already using LONG DISTANCE wherever we can..."

BUT ARE YOU? Are you sure your business is getting all that Long Distance telephone service has to offer? . . . From long experience, alert executives in many lines of business have developed dozens of effective, economical ways to use the service. Some of them are listed below—very briefly. Check the list. Maybe you'll find a few ideas you'd like to know more about.

☐ **APPOINTMENTS**—Telephoning ahead from town to town to save waiting time and wasted visits.

☐ **COLLECTIONS**—Arranging settlement of overdue accounts quickly, directly, diplomatically.

☐ **COMPLAINTS**—Clearing up difficulties tactfully and personally for full satisfaction.

☐ **DELIVERIES**—Scheduling or expediting for better customer service. Tracing shipments.

☐ **GOOD WILL**—Creating closer relations with your customers through more frequent, more personal executive contacts.

☐ **OPERATIONS**—Supervising field men, issuing instructions, getting information, stimulating action, co-ordinating production and sales. Telephone Conference Service is frequently used for these purposes because it permits group discussion between headquarters and as many as five branches—on the same connection.

☐ **ORDERS**—Transmitting and acknowledging orders, clearing up questions—for faster, more accurate and courteous service.

☐ **OUT-OF-TOWN REPRESENTATION**—Inviting customers to telephone orders, inquiries, etc., "Collect," from points where you have no branch office.

☐ **PURCHASING**—Direct buying, shipments, specifications, placing rush orders.

☐ **SALES**—Combining personal visits and telephone calls for more frequent coverage. Following up direct-mail or customer inquiries. Making call-backs. Disposing of overstocks or specials. Covering out-of-way or inactive accounts. Saving cancelations of orders. Making quick market surveys. Announcing price changes.

☐ **TRAFFIC**—Dispatching and routing of shipments, cargoes, trucks and buses. Arranging for terminal facilities.

• Call the local telephone office for more detailed information.

BELL SYSTEM — AMERICAN TELEPHONE & TELEGRAPH CO. AND ASSOCIATED COMPANIES

IRON, STEEL AND METAL MARKET

PEAK production in steel was reached during the latter part of April. According to the American Iron and Steel Institute, the operating rate was in excess of 92 per cent of capacity compared with 90.7 per cent a month ago and 71.2 per cent a year ago. Second quarter prices of principal commodities have been reaffirmed for the third quarter, and for shipment September 30 or earlier.

Southern Mills Booked Well Ahead

Southern steel activity reached 83 per cent of capacity at the end of April. The market outlook, as one of the leading producers in the Birmingham district points out, continues very bright. Nearly all mills are booked well ahead. While buying is not as heavy as several weeks back, specifications continue plentiful and little progress is being made toward reducing temporary backlogs. It is stated that more semi-finished and finished steel products were made in Alabama during March than in any previous month. Sharing in this record among the major producers were the Tennessee, Coal and Iron Company, Gulf States Steel Company, and Connors Steel Company.

During April the Southern Railway ordered at a cost of $4,000,000, 2,000 steel sheathed box cars and 250 gondolas from the Pullman Standard Car Manufacturing Company to be built at its Bessemer plant. The Company also received an order for 150 box cars for the National Railways of Mexico. The Southern Railway also ordered 1,250 gondola cars from the American Car & Foundry Co., 500 automobile cars and 500 box cars from the Mt. Vernon Car Manufacturing Co., and 1,100 hopper cars from the Pressed Steel Car Co. The Atlantic Coast Line has ordered 200 automobile cars and 400 box cars from the Mt. Vernon Car Manufacturing Co. and 200 automobile cars, 15 coaches and 15 express cars from the Bethlehem Steel Co.

Republic to Expand Gulf States Facilities

Completion of the acquisition of the Gulf States Steel Company by the Republic Steel Corporation was announced during April by T. M. Girdler, Chairman of Republic. It is expected that expansion of Gulf States properties at Gadsden will be made at a cost of between $2,000,000 and $3,000,000.

"The addition of Gulf States plants and properties will greatly strengthen Republic's position in the South," said Mr. Girdler in commenting on the purchase. "At Birmingham, Republic has had ample iron ore supplies and pig iron capacity but hitherto has had no steel making facilities in the South. The Gulf States plants at Gadsden furnish these facilities. Republic's furnaces and mines at Birmingham and Gulf States' mills at Gadsden supplement each other and the operation of both under Republic management will effect substantial economies.

"It is my belief that the South is entering upon a period of increasing industrial activity and that within a few years it may consume very considerably more steel than it does today. With the Birmingham and Gadsden plants and properties working in conjunction Republic will be in an excellent position to take advantage of these expanding markets."

The Gulf States plants which will be known as the Gulf States district are to be run as an operating district of Republic. L. E. Goehegan, formerly vice president and general manager of Gulf States, will head the operations of the new district as district manager. The sales organizations of the two companies will be combined. Present operations in Birmingham district will continue under direction of Wade Oldham, Birmingham district manager. Gulf States manufactures chiefly bars, plates, sheets and wire products.

R. J. Wyson, executive vice president, has been elected president of Republic with Mr. Girdler continuing as Chairman of the Board.

Fabricated Structural Steel Orders and Shipments Ahead of Last Year

Fabricated structural steel orders in March were the largest since July of last year, states the American Institute of Steel Construction. They totaled 182,049 tons for the whole industry which was approximately 77.8 per cent of normal (yearly average 1928-31). This brought the total for the first quarter to 401,646 tons, 9 per cent above the same quarter of last year.

Shipments during March of 131,691 tons also increased, carrying the total to 315,559 tons, or 19 per cent above last year. The work ahead likewise is larger. The marked increase in bookings and shipments during March is partially accounted for by the noticeable slump during February.

The tonnage available for fabrication is 561,212 tons. During 1936 the structural steel fabricating industry produced over 1,600,000 tons, 37 per cent going into highway and railway bridges, 25 per cent into public and private building work, 22 per cent in the erection of new industrial plants, about 3 per cent of fabricated structural steel was used for engineering projects, with grade crossings, repairs and maintenance to plants accounting for the remainder.

Copper and Lead Markets

Weakness developed in metals in the foreign markets during April with prices declining. While domestic demand for copper was firm, prices were around 14.5 cents a pound. Total sales for April were over 41,700,000 pounds.

Lead markets were quiet at the end of the month with prices at 6 cents a pound, New York, and 5.85 cents a pound, St. Louis.

Zinc was quoted at 6.75 cents a pound, St. Louis, at the end of April with London prices at 5.05 cents a pound.

Domestic sales of copper and brass tubing for the first quarter of 1937 amounted to 36,000,000 pounds, an increase of 80 per cent over the corresponding period of last year and the total sales of 1936 of 95,000,000 pounds topped former records for any year by 15,000,000 pounds.

PROMPT DELIVERIES FROM STOCK (Standard Sizes)

ORIOLE GALVANIZED STEEL SHEETS

Flat-Corrugated-Roofing

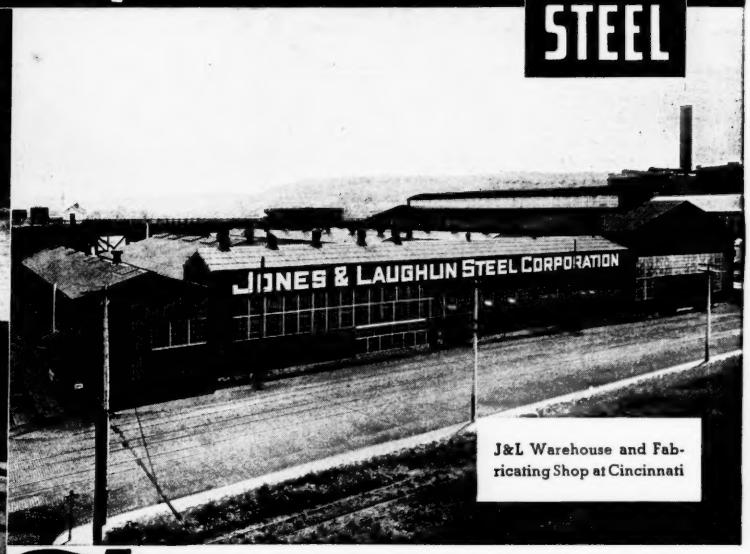
THE EASTERN ROLLING MILL CO.

BALTIMORE, MARYLAND

District Office, Petroleum Bldg., Houston, Tex.

Increase your profits with J&L STEEL

This friction saw cuts steel to exact length . . . leaves a smooth, even surface.



J&L Warehouse and Fabricating Shop at Cincinnati

Steel . . .

in the form you need

. . . . from 4 J & L Warehouses serving the Industrial South

For your regular or emergency needs for steel, look to Jones & Laughlin's Warehouses to save you time and money.

You will get the steel you need . . . on time . . . in ready-for-use form. At New Orleans, at Cincinnati and at Pittsburgh, large J&L Warehouses are ready to serve you . . . They are completely equipped for cutting, welding, forming, fabricating and handling your orders in the shortest possible time.

Large stocks of oil country tubular goods, standard pipe, sheets, hot rolled bars, wire products, and a bar fabricating shop, feature the J&L Warehouse Service at Memphis.

All J&L Warehouses carry extensive stocks of a complete and diversified line of high quality steel products. You can rely on J&L to supply you with steel that meets your requirements . . . for strength, safety, durability, appearance and service.

Save time, trouble and money . . . buy your steel from Jones & Laughlin.

SERVING THE SOUTH

Sales Offices: Atlanta, Cincinnati, Memphis, New Orleans, Philadelphia, Pittsburgh.

Warehouses: Cincinnati, Memphis, New Orleans, Pittsburgh.

FOR EVERY NEED . . . THE RIGHT QUALITY OF STEEL IN A FULL RANGE OF SIZES

JONES & LAUGHLIN STEEL CORPORATION

PITTSBURGH, PENNSYLVANIA

MAKERS OF HIGH QUALITY IRON AND STEEL PRODUCTS SINCE 1850

XUM

LUMBER NEWS OF THE MONTH

Unfilled Orders and Low Stock Keep Prices at 1929 Levels

WITH prices at 1929 levels, unfilled lumber orders at American mills and concentration yards are about twice as large as a year ago and stocks on hand are one-third of the 1936 volume. The industry on the Pacific Coast is still feeling the effects of the Marine strike and labor difficulties.

In the Southern pine region, April figures show weekly orders and shipments running below April of last year with production 9 to 17 per cent above a year ago. For the week ending April 24, orders received by 110 mills reporting to the Southern Pine Association amounted to 33,464,000 feet, an increase of 10 per cent above the previous week, and 1 per cent above the corresponding week of last year. Shipments aggregated 1,692 cars, or 35,523,000 feet, an increase, on the average, of 10 per cent above the preceding week, but a decrease of 2 per cent below the similar week of last year. Production totaled 36,533,000 feet, representing a decrease, on the average, of 4 per cent below the week before, but an increase of 9 per cent above the like week of the past year.

Orders on hand yet to be filled at these 110 mills, on April 24, totaled 87,043,000 feet, equivalent to 4,145 cars. This represents a decrease of 2 per cent below the aggregate unfilled order file at close of the preceding week.

Total stocks on hand April 24 at 102 reporting mills to the Southern Pine Association, aggregated 389,816,000 feet, or 84 per cent of normal and 7 per cent below this time a year ago.

Four Southern States to Plant Nearly 59,000,000 Trees

A Spring drive to plant 50,000,000 seedlings, in addition to the 65,000,000 already planted in reforestation work on sub-marginal land development projects, the Resettlement Administration announces, will give four Southern states nearly 59,000,000 seedlings. These four states are Florida, North Carolina, South Carolina, and Tennessee. At its large nursery at the Sandhills project in south-central North Carolina the RA has 40,000,000 seedlings awaiting planting in 11 states. Other large Resettlement nurseries are the Natchez-Trace Forest project, Lexington, Tenn., and Coalin's Forest and Game Reservation near Princeton, Ky. Approximately 9,000,000 acres of eroded land have been acquired by the RA. The Mississippi forest service is planning the production of 4,000,000 black locust and slash pine seedlings at the University State forest near Wiggins.

In South Louisiana and Mississippi each reported the planting of approximately 22,000,000 trees, mainly longleaf, slash and loblolly pine, on National Forest land within their boundaries during the planting season which ended in the spring of 1936. Because of climatic conditions, tree planting in the Southern States begins in the fall and extends into the early months of the following year. By April 1 more than 62,000 acres are estimated to have been reforested in the Southern National Forests, representing an increase of 7,000,000 trees over the previous season's plantings.

In the South, the Stuart Nursery in Louisiana reported the production of nearly 30,000,000 trees, and the newly established W. W. Ashe Nursery in Mississippi produced 22,000,000 trees. The Ozark Nursery in Arkansas produced 3,456,000; the Parsons Nursery of West Virginia, 2,326,000.

The following table gives the acreage planted on National Forests by Southern States during the calendar year 1936. Number of trees planted is roughly 1,000 per acre.

States	Acres Planted
Arkansas	4,814
Louisiana	23,278
Mississippi	22,597
Missouri	8,275
North Carolina	144
South Carolina	501
Tennessee	101
Texas	3,623
West Virginia	1,431
Total	64,764
Total U. S.	219,185

Alabama and West Florida Pine and Hardwood Producers to Meet

THE second annual meeting of Southern pine and hardwood loggers and timbermen in the Alabama and West Florida district, under auspices of the Southern Pine Association, will be held in Chapman, Ala., on May 14. J. H. Jones, of Century, Fla., chairman of the district loggers' organization, is arranging the program to include discussions of practical logging methods, equipment, costs of woods operations, and other features of logging. An inspection will be made of some of the timberlands of W. T. Smith Lumber Company, near Chapman, to view examples of conservation, selective logging and forest management.

Pine and hardwood manufacturers in Alabama and West Florida, are invited to participate in this meeting, which is sponsored by the conservation department of the SPA.

Texas Building Contracts Up 70 Per Cent

Delegates to Texas Lumbermen's Association convention in San Antonio were told their State's building contracts last year increased about 70 per cent over 1935, and that they could expect a somewhat similar rise for 1937. The speaker, E. L. Kurth, president, Southern Pine Association, urged lumbermen to cooperate in sales promotion and advertising programs to educate builders to the importance of quality lumber and construction.

"The opportunities are great," Mr. Kurth said, "but unless the lumber dealers think in the terms of the home and do their part in protecting the home builder against shoddy construction, the door will be open for other and newer products, possibly in the pre-fabricated form which may not be sold through retail lumber dealers, to capture this attractive market."

New Forest Survey of 45 North Carolina Counties

The forest wealth of 45 eastern North Carolina counties, whose area of woodland aggregates more than 15,000,000 acres, will be shown by a new survey to be made by timber estimators, under United States Forestry Service supervision. Men will gather data from which the rate of growth, rate of cutting, and of depletion from fire, disease and other influences, will be determined.

Because of the rapid development of the pulp and paper industry in the area, the information as to supplies of wood available is deemed of particular importance at this time and is regarded as essential to the fixing of a basis for the formation of a definite forest policy and practice.

Field work will involve running parallel lines at ten-mile intervals across the State from the South Carolina line to the Virginia line, and measuring, or estimating the number, size, type and condition of the trees of sample plots at regular points along these lines.

Plant Walnut Trees

Black walnut trees, a good source of cash income, can be grown in fence corners, along ditch and stream banks, and other so-called waste places about the farm. An average North Carolina farm could easily have 50 or more black walnut trees, said R. W. Graeber, extension forester at State College. The nuts from the trees can be harvested annually, and where a sufficient number of trees are produced, a few can be cut from time to time for timber. Figuring the nuts from one tree at $2.50 a year, a crop of 50 trees would produce an annual income of $125 from the sale of nuts alone. There is a big demand for black walnut lumber and high prices are paid for trees in good condition.

SALVAGE value of AmCreCo timber is very high because of its long life. With little deterioration, other than wear, the use and re-use of this pressure creosoted timber offers a greater economy. Where timber construction must have long life, the material used must be the best. When AmCreCo is used it is certain to meet the highest standard for any job.

AMERICAN CREOSOTING COMPANY

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COLONIAL CREOSOTING COMPANY INCORPORATED

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ADDRESS INQUIRIES TO CHICAGO, ILL., OR LOUISVILLE, KY.

XUM

GOOD ROADS AND MOTOR TRANSPORT

1936 State Gasoline Taxes Totaled One Third of National Tax Bill

STATE sales taxes on gasoline accounted for more than one third of all money paid in taxes in the United States in 1936, according to a study made by the American Petroleum Industries Committee. The rate of increase in gasoline taxes in the States has been far higher than the rate of other State taxes since 1926, the increase being 269 per cent for the decade 1926-36.

The decline in receipts from gasoline taxes was but 3.1 per cent compared to a 20 per cent decline registered in other State levies during the depression. When the trend of tax receipts turned upward, gasoline taxes again charged ahead 33.2 per cent between 1933 and 1936, as against a rise of 21.7 per cent in other State revenues.

State gasoline taxes cost motorists $691,000,000, or about 12 per cent more than they paid in 1935. Duplicating Federal taxes lifted the cost to $880,000,000, with cost of county and city taxes unrecorded, but believed to run into additional millions of dollars. In the South last year State gasoline tax receipts and fees amounted to $235,921,000 and gasoline consumption was more than 5,270,000,000 gallons.

STATE MOTOR FUEL CONSUMPTION AND TAXES

States	Tax Rate Cents Per Gal., Jan. 1	Net Consumption Gallons*	Net Total Tax Receipts†
Ala.	6	199,040,000	$11,803,000
Ark.	6½	154,208,000	9,235,000
D. C.	2	126,837,000	2,393,000
Fla.	7	300,192,000	20,317,000
Ga.	6	303,968,000	17,493,000
Ky.	5	228,333,000	11,277,000
La.	5	223,093,000	12,207,000
Md.	4	245,231,000	8,921,000
Miss.	6	169,945,000	9,062,000
Mo.	2	567,750,000	11,188,000
N. C.	6	350,380,000	20,961,000
Okla.	4	365,737,000	13,216,000
S. C.	6	161,474,000	9,695,000
Tenn.	7	266,315,000	18,158,000
Texas	4	1,108,063,000	38,471,000
Va.	5	316,556,000	14,714,000
W. Va.	4	181,039,000	6,810,000
Total	5.03	5,270,161,000	$235,921,000
U. S.	3.85	19,678,661,000	$691,420,000

*Export sales and exemptions for other than highway use have been excluded as far as possible. †Includes dealer's licenses and other miscellaneous receipts in some states.

Sodium Lights for Texas Overpass

THE Texas Power and Light Co. will soon complete installation of Texas' longest stretch of sodium safety lights on a new overpass located on the Dallas-Tyler highway. Twenty-five units will be mounted on standards 23 feet above the roadway. The lights are to be staggered at distances from 110 to 160 feet. The city of Tyler is financing the installation and will pay for its maintenance.

Prevent Misuse of Road Funds

MEASURES designed to prevent future misuse of automotive tax funds to purposes other than highway financing were introduced in the legislatures of 13 States this year.

Since 1930 the practice of tapping road funds to meet current general expenses has become widespread until now more than $150,000,000, or approximately one-seventh, of the annual gasoline and other automotive taxes collected by the States is misappropriated. Such diversion of automotive tax receipts, resulting in neglect of roads and increasing the hazards of motoring, is meeting with strong public opposition. Five states — Colorado, Kansas, Maine, Minnesota, and Missouri —have constitutional or statutory bans, adopted prior to 1937, prohibiting the practice. Last year Maine by a popular vote of three to one outlawed such diversion by the State.

Of the 13 state legislatures to consider diversion of road funds this year, four have passed legislation. In Indiana, a joint resolution for a constitutional amendment has been adopted by the legislature. This must be passed by the next legislature, and then it is submitted to the State electors. In North Dakota a law forbidding diversion of road funds has been signed by the Governor. In Alabama both a law forbidding diversion and a measure to submit a constitutional amendment to the electorate in the 1938 general election have been adopted. South Dakota has enacted a law rescinding the diversion of 2¢ per gallon of the gasoline tax to retire rural credit bonds. It is expected that similar favorable action against diversion will be taken by several other state legislatures before they adjourn.

Because diversion of highway tax funds was little known before the depression, comparatively few States have statutory bars. For centuries it has been a traditional and accepted principle of public conscience that taxes collected by a government in the role of a proprietor should be used exclusively to pay the cost of the service rendered. That principle is adhered to in water taxes and the rates of municipally owned gas and electric plants. Yet when state revenues slumped in 1930 and the following years, several states seized upon the road funds to make up deficits in the general administrative funds. Besides violating tradition, the misuse of highway funds resulted in widespread neglect of roads and an increase in the hazards of motoring. Also it saddled an unfair tax burden upon the motorists, forcing them to pay a disproportionate share of the general costs of government.

Constitutional Amendment Approved by Texas Senate

AN amendment to the State Constitution designed to permit tax payers in the larger counties to levy special road and bridge building taxes for limited periods received unanimous approval in the Texas Senate. The plan is expected to allow construction of bridges and roads of permanent type to keep pace with income.

In an editorial analysis of the bill, sponsored by Weaver Moore of Houston, the Dallas *Morning News* points out that the bill is not "geared to a public works that would spur road construction in depression periods, when employment is slack and materials relatively cheap. If administered in a haphazard manner, the Moore plan might result in concentrating road building in inflationary periods, when labor is scarce and materials high."

Florida Motorists Pay Half of Cost of State Government

MOTORISTS of Florida paid $24,478,056 in 11 States taxes during the fiscal year ending June 30, 1936. This compares with the total of all revenue receipts in the State of $44,755,409. Florida Tax-payers Association, Inc. in its bulletin No. 18 gives the sources of State revenue collections as including 11 taxes paid, either directly or indirectly by the motorists.

Canned Turpentine Shipped by Truck

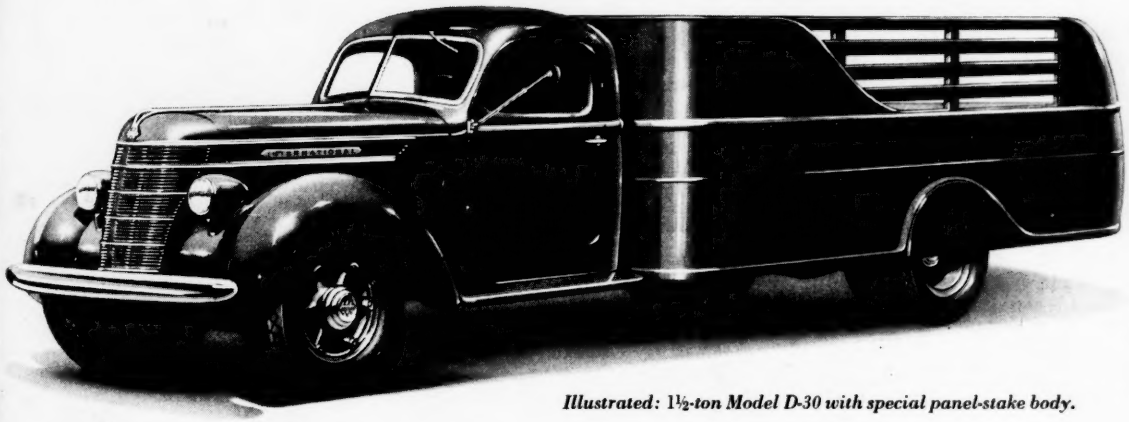
For the first time in the history of the turpentine industry canned pure gum turpentine was shipped in April, from Jacksonville to Chattanooga. More than 3000 quart and pint containers of the product left the Turpentine and Rosin Factors, Inc., plant in the Florida city by truck for Home Stores, Inc., a concern operating 65 establishments in the Tennessee area, to be utilized in household and medicinal products.

17,080 Truck Hiring Concerns in South

Motor trucking for-hire business in the Southern States is of substantial volume. Based on preliminary 1935 census returns, there were 17,089 concerns operating 46,251 trucks for hire. They did an annual business of $112,400,000 in 1935. Most of the concerns reporting were in the "smaller" classification with the larger organizations doing the bulk of the business in these states.

FIRST SHOWING of the New INTERNATIONALS

International Harvester presents a great new line of trucks—a major news story for the transportation world—a personal news item for every user of trucks!



Illustrated: 1½-ton Model D-30 with special panel-stake body.

HERE is the first announcement of the new International Trucks in the gleaming metal dress of today and tomorrow. Here are *eye-values* that tell their own story, ultramodern styling to please every owner and driver, your customers and the general public. But eye-values are not the whole story; more important, in these new trucks, are *new values underneath the surface.*

Consistent International policy, adhered to through more than 30 years of ALL-TRUCK manufacture, is your guarantee that an entirely new beauty of exterior in International Trucks brings also *advanced engineering throughout the mechanical product.*

New standards of utility and performance are offered you in every model of this new line, in sizes ranging from the Half-Ton unit up to powerful Six-Wheelers. The new International Trucks are at your service, on display at International dealer and branch showrooms. Folders describing sizes and styles used in your own hauling work will be sent on request.

INTERNATIONAL HARVESTER COMPANY
606 S. Michigan Ave. (INCORPORATED) Chicago, Illinois

INTERNATIONAL TRUCKS

EQUIPMENT NEW AND IMPROVED

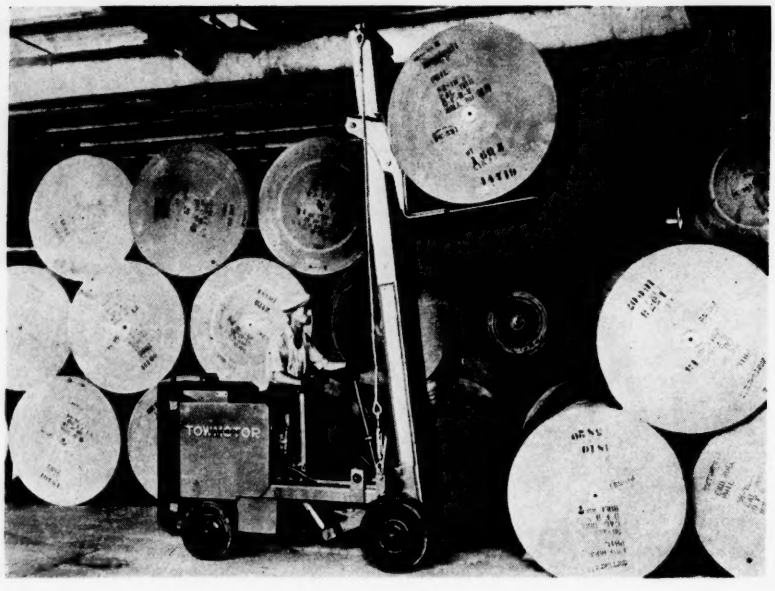
Jeffrey Precision Weighing Machine

Under the designation of "Waytrol," a new precision weighing machine applicable to the processes of continuous weigh-feeding, proportioning and batching, is announced by Jeffrey Manufacturing Company, Columbus, Ohio. The machine combines the following three features, declared to be conducive to super-accuracy: All-electric vibrating feeding; synchronous weight belt on a scale beam so pivoted as to receive material at the most sensitive end; automatic all-electric control sensitized through a device called the Electric Brain. On the unit, feed and weighing are physically separated processes. Waytrols are available in various sizes.

Lift Truck For Paper Handling

Especially designed for handling paper in rolls and stacking to greater height, thus saving floor space, a new high mast lift truck has been introduced by Towmotor, Inc., Cleveland, Ohio, a pioneer in the manufacture of straight gas powered industrial haulage equipment. To avoid injuring the paper, a scoop is used instead of forks, and in operating the truck the forward edge is lowered to the floor with the mast tilted slightly forward. The truck forces the scoop partly under the roll and a quick backward tilting of the mast scoops the roll back into a carriage where the roll holds itself without additional clamping. Traveling is done with the load in the lowered position. Overall height, lift and capacity may be governed to suit individual requirements. Like other Towmotor Lift Trucks, the new model is declared to be fast and economical in operation.

The Towmotor Scoops, Transports, Elevates and Unloads



Symmetrical Angle Reflectors

Designed especially for use with High Intensity Mercury lamps, Westinghouse 250-watt Symmetrical Angle Reflectors made by Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa., provide ideal illumination where intensive local lighting of vertical and horizontal surfaces from the side is required. The reflector, with diffusing glass cover, is designed to give a widespread distribution of light horizontally, and an even distribution of light from top to bottom of the vertical surface. It is drawn from 24 gauge iron sheet.

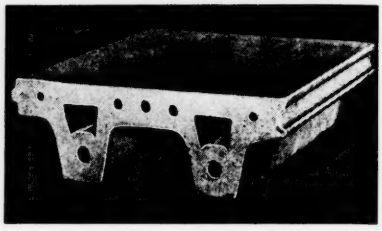
The Westinghouse Balanced Symmetrical Angle Reflector is designed especially for use with the 400-watt High Intensity Mercury Lamp, where intensive local lighting of vertical or horizontal surfaces from the side is required. These reflectors are made from 14 gauge aluminum.

Salem Steel Elevator Bucket Improved

Probably marking the first radical change in 60 years, a notable improvement in the design and construction of Salem steel elevator buckets is announced by Link-Belt Company, Chicago, Ill. The new so-called Super Salem steel elevator bucket is reinforced at the digging lip, front corners and along the back, giving additional strength and greater resistance to abrasive wear and distortion without increase in bucket weight. Super Salem buckets, made in 2½ inches by 2½ inches to 30 inches by 8 inches, are interchangeable with the old, and in No. 24 and No. 18 gauge are said to be comparable to "heavy" construction of the conventional standard Salem design. The new bucket may also be furnished in copper, brass, aluminum, Monel metal or stainless steel.

Natco Dek-Tile For Roofs

Designed to provide a low cost, permanent, fireproof, insulated roof, combining light weight with structural strength and rigidity, Natco Dek-Tile has been introduced by the National Fireproofing Corporation, of Pittsburgh, Pa. This new and improved pre-built roof system, which is intended for industrial and commercial buildings, consists of hollow burned clay units, assembled, cemented and bolted together. It may be supplied to the job in the form of complete roof sections, ready to lay in place on the roof frame. Single Dek-Tile units comprising the sections are made of clay which has been burned at a temperature of approximately 2,000 degrees Fahrenheit, and by means of a special manufacturing process the finished product is filled throughout with minute microscopic voids or cells. This cellularity of the clay structure, combined with the design of the hollow units, themselves, makes a light weight product, strong and rigid, with a high insulation value.



G-E Screenless Open Textile Motor

Incorporating several novel features of design, a new screenless open motor for textile service has been introduced by General Electric Company, Schenectady, N. Y. The ventilating system is designed with particular attention to positive lint expulsion. Any free lint or dust in the ventilating air is forced through large, unobstructed air passages and is effectively discharged through large openings in the stator frame. Outstanding features are: size of the air inlet and discharge openings, smooth contours of air passages, and unique design and location of fans. The motor is furnished with an indestructible rotor with a cast-aluminum winding, and smooth, solid rings, while the stator is of unusual strength and rigidity. End frames are of malleable iron and the outer and inner rings and cross-pieces form an arched truss, rigid and strong.

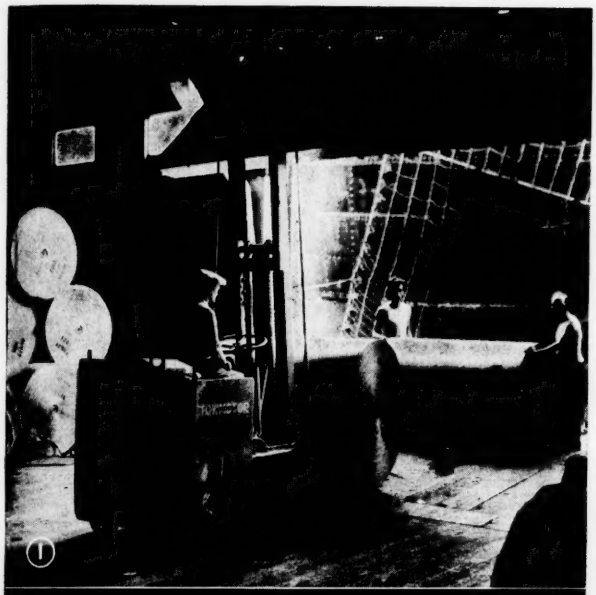
Correction

In a brief article published in the April number of MANUFACTURERS RECORD, it was announced that ARMCO Stainless Steel is now being used for the blade of a new type of shovel being manufactured by Ames-Baldwin-Wyoming Company, of Parkersburg, W. Va. The item should have read The Ames Baldwin-Wyoming Company, North Easton, Mass.

TOWMOTOR CLEVELAND

HAULAGE EQUIPMENT SINCE 1919

IN *Paper Handling*



SCOOPING WITHOUT DAMAGE

TOWMOTOR straight gas operated — hydraulic lift trucks truly set a high standard of efficiency and economy in better paper handling.

Scoops rolls from floor level — without injuring the paper. Operator safely seated in full view of work. Mast tilts back at angle to hold roll securely. As the truck approaches the stack, the roll is elevated, then the mast is tilted forward under hydraulic control — and the roll falls to desired position on stack. Equally important is the fact that all operations are performed with one operator, with speed, safety and accuracy.

Dual tired driving wheels under the load to give better traction. Steering on rear wheels for short pivot turns. Load capacity and height of lift built to suit your requirements. Straight gas powered with unusually rugged construction throughout for greater dependability and 24-hour uninterrupted service. Lowest cost per year is the real cost. Give details of your requirements and we will send prices and specifications to cover.

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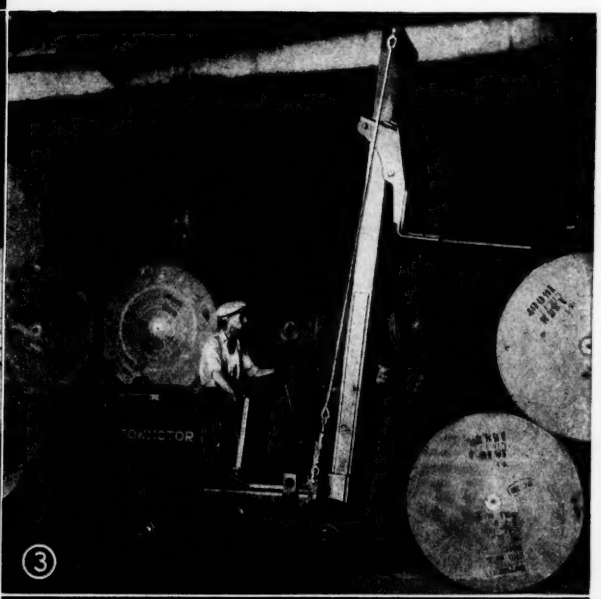
Los Angeles Office; Irving G. King & Co., 708 E. 6th St., Phone: Mich. 9256
San Francisco Office: Jack B. Bell, 116 New Montgomery St., Phone: Sutter 4178

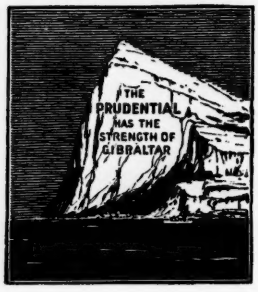
CONVEYING AND ELEVATING



UNLOADING AND PLACING

GAS HAULAGE EQUIPMENT SINCE 1919

Thirty
Payment
Life



That's the title of a policy with some mighty fine advantages. Tell us your birth-date and we'll send you an illustration.

THE PRUDENTIAL
INSURANCE COMPANY OF AMERICA
EDWARD D. DUFFIELD, President
HOME OFFICE, NEWARK, N. J.

FINANCIAL NEWS

ACCORDING to the Industrial News Review, there was a celebration recently at Silverton, Oregon, in connection with the dedication of a new community hospital, which had been built without the aid of public funds. The Governor of Oregon, in an address, said "today the most appalling thing to me is the constant tendency of citizens in distress to turn to the government for aid." He took occasion to blast chiselers, sit-down strikes, parlor pink professors and pussy-footers of all kinds.

It should be added that Governor Martin of Oregon in turn presents a refreshing viewpoint as the chief executive of a State. The spectacle of governors, mayors and others in public office rushing to the Federal Government for aid for various purposes has been deplored by thoughtful people. The procedure has become almost a habit on the part of some of our executives. There has been such a clamor by State and City officials for Federal money, that prodigious spending has gone on with very little check.

One of the pieces of real news recently was the petition sent to Washington by certain religious sects of Pennsylvania, asking that government agencies be stopped from trying to persuade them to borrow money for supposed improvements which they did not need.

Industry's Debt

INTEREST charges on bonded debt constitute a negligible item in manufacturing, according to the National Industrial Conference Board. "As compared with industrial output, they have increased so moderately that there is no basis for the assumption that debt has outrun production." The study made brings the conclusion that the manufacturing industry has a smaller debt burden than any other branch of economic activity, largely due to the fact that the method of financing operations in manufacturing is predominantly "through the use of direct investments obtained by stock issues and the use of corporate savings."

The Surplus Tax

AMONG the questions discussed at the annual meeting of the United States Chamber of Commerce, the tax on surpluses was given a prominent place. The law as it stands is a bar to progress. Its glaring defects have been previously discussed in these pages.

There are other ways of balancing the national budget besides taxation that takes a big slice of a small industry's saved up money intended for improvement, and a rainy day sure to come.

Insured Banks

THE Federal Deposit Insurance Corporation in a report as of Dec. 31, 1936 summarizes the assets and liabilities of nearly 14,000 insured commercial banks. There is shown an increase of 12 per cent in deposits, practically the same as during 1935. Of the total deposits of $49 billion in these insured banks on December 31, 1936, $35 billion were on demand. The total capital account increased $200 million, or 3 per cent, amounting to $6.4 billion.

(*Continued on page* 66)

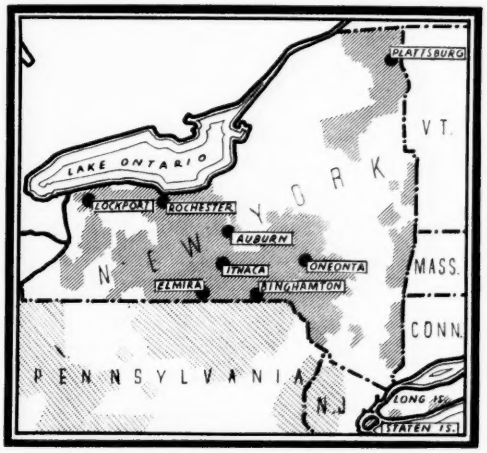
JOBS FOR 13,800 WORKERS IN NEW YORK STATE

CLOSE TO 14,000 jobs were created during the last five years by the location of new industries or expansion of existing concerns in New York areas served by the Associated System.

This industrial development resulted largely from a definite program. In this, community organizations, Associated operating companies, and the System's Industrial Development Division cooperated to help concerns find better locations and to expand their operations.

About 42% of the area of New York State is served by Associated companies. The hundreds of communities in this area offer a wide choice of industrial advantages.

Full information about these industrial areas may be obtained from our Industrial Development Division, 150 Broadway, New York City.



Shaded areas in New York are served by Associated System. Adjoining shaded areas are part of total territory also served by Associated companies.

ASSOCIATED GAS & ELECTRIC SYSTEM

FOR SERVICE TO THE SOUTH

NATURAL GAS service from this system is available for domestic, commercial, and industrial uses throughout a wide area in the

STATE OF GEORGIA:

Atlanta	Cedartown	Griffin	Newnan
Barnesville	Columbus	Macon	Plainville
Calhoun	Dry Branch	Marietta	Rockmart
Carrollton	Forsyth	McIntyre	Rome
Cartersville	Gordon	Milledgeville	Thomaston

Available also in

MISSISSIPPI & ALABAMA

SOUTHERN NATURAL GAS COMPANY

Watts Building — Birmingham, Ala.

"WHICH END?"

Believe it or not, "Which End?" is the name of a booklet. It is a strange title, and you may ask, "Why that title?"

It was chosen to attract attention. It tells the story of how to fire high volatile bituminous coals smokelessly. The booklet describes and pictures the "alternate method" of hand firing ACI Quality Coals from eastern Kentucky, eastern Tennessee, southwestern Virginia, and southern West Virginia.

Retail coal merchants, who are cooperating in . . . not fighting . . . smoke abatement, have used 150,000 copies in their efforts to educate householders. Write for your sample copy of the "Which End?" booklet and information on how to obtain additional copies. Also, ask for lists of producers and sales agents of ACI Quality Coals.

Cincinnati, the home of ACI, will be host to the 14th Annual Coal Mining Convention and Exposition of the AMERICAN MINING CONGRESS, May 17-21, 1937. We hope you will attend, and visit ACI headquarters.

Appalachian Coals, Inc.
TRANSPORTATION BUILDING · CINCINNATI, OHIO

THE GEORGIA MARBLE COMPANY
Producers and Manufacturers of
GEORGIA MARBLE
TATE, GEORGIA
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Drawing Instruments, Slide Rules, Planimeters, Drawing and Tracing Papers, Drafting Room Furniture, Surveying Instruments, Tapes.

PIGMENT Waterproof Drawing Ink
in black and white and a wide range of opaque colors. Catalogue sent on request. Inquiries solicited.
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Correspondence invited

BALTIMORE COMMERCIAL BANK
GWYNN CROWTHER, *President*
BALTIMORE, MARYLAND

Member Federal Reserve System
Member Federal Deposit Insurance Corporation

Financial News

(*Continued from page* 64)

Are Prices Too High?

A SERIOUS drop in share markets was one effect of the President's announcement last month that the prices of durable goods were too high, and Federal money would be diverted to purchases tending to increase consumer purchasing power.

The president of the U. S. Steel Corporation, in his report of the first quarter's business, said "shipments during the quarter were fairly well diversified as to classification of products, although materials for capital goods consumption continued somewhat below those for consumer goods."

The Day's News

MOST of the news of the day affecting business bears a Washington date line. Reporters have a hard time keeping up with it. The difficulty of understanding what it is all about leaves the mind confused.

Money is still being ladled out for the unemployed, and requests to count the number out of work are refused. Relief is regarded as such an important part of our economy, that sums of money of astronomical proportions are regarded as necessary, although industry has put millions of men back to work since recovery started.

A new NRA is said to be on the program. If it is anything like the old one it will bring agreements on prices between producers, and almost at the same time the announcement is made that the Attorney General is going to get busy with the Anti-trust law. The day this was announced stocks and commodity prices broke badly. This was followed immediately by a further statement that it would take many months to go into such an important subject.

Private Only In Name

C. W. KELLOGG, president of the Edison Electric Institute, and Chairman of the Engineers Public Service Company, said the other day in an address:

> "The only present threat to the electric industry comes from the Federal Government. Except for this threat the outlook for the industry was never brighter. * * * Government, in its attack on the so-called 'private' utilities seems to overlook the fact that they are 'private' only in the sense that they are non-governmental, for the private utilities really are owned by millions of investors."

Relief Money

THE United States News calls attention to the fact that in the year 1934, when business was not good and the army of those on relief had not been materially reduced, the Federal Government spent $2,154,000,000 on those supposed to be in need. In the next fiscal year, although several million of idle have been given employment by private industry, the Federal Government will spend $2,420,000,000, or $266,000,000 more.

F.C.A. Farm Sales

A NEWS release from the Farm Credit Administration states that the Federal Land Banks sold 1,000 more farms in the first quarter of this year than in the corresponding period of last year. The total number of sales for the twelve months ending March 31 this year, was 16,241.

From Hook to Bucket Work in 3 Minutes

The Strayer-Electric Bucket permits instant change from Hook to Bucket work—no rope reeving. Just slip the crane hook into the holding yoke—plug in the power line and the man in the cab does the rest. 10 years of proved performance on single drum cranes and scores of satisfied users testify to its mechanical perfection. Write for proposition.

1. Digs to full capacity at every grab.
2. Operates within headroom of bucket.
3. All electric control and protection.
4. Sizes from ½ yd. to 12 yds.
5. Guaranteed to dig more per grab than any bucket of equal weight and measured capacity.

BUILT BY

ALL TYPES DIGGING AND RE-HANDLING BUCKETS
OVERHEAD ELECTRIC CRANES
STRAYER ELECTRIC BUCKETS
AGGREMETERS TO HANDLE BULK MATERIALS . . . . . .

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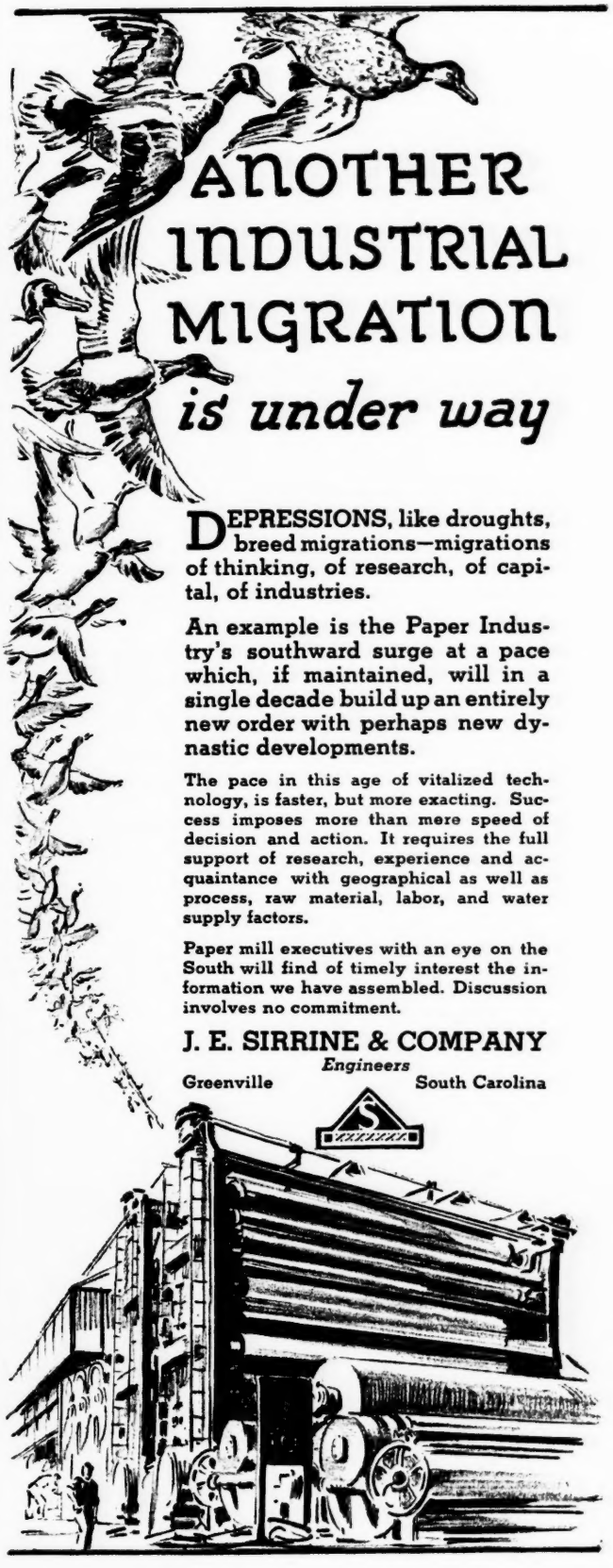
ERIE STEEL CONSTRUCTION CO.
880 GEIST ROAD - - - ERIE, PENNSYLVANIA

CONTINENTAL *Chain Link* FENCE

FABRIC OF
KONIK
STEEL
CONTAINING COPPER, NICKEL, CHROMIUM FOR GREATER STRENGTH AND RUST RESISTANCE
MFD. UNDER U. S. PATENT NUMBER 1874814
RUST-RESISTANT CLEAR THROUGH
. . . And for added protection and longer life Continental fence fabric carries a heavy uniform zinc coating applied by special Continental process. Complete Manual on "PLANNED PROTECTION"—free on request.

CONTINENTAL STEEL CORPORATION
KOKOMO, INDIANA
PLANTS AT KOKOMO, INDIANAPOLIS, CANTON



ANOTHER INDUSTRIAL MIGRATION *is under way*

DEPRESSIONS, like droughts, breed migrations—migrations of thinking, of research, of capital, of industries.

An example is the Paper Industry's southward surge at a pace which, if maintained, will in a single decade build up an entirely new order with perhaps new dynastic developments.

The pace in this age of vitalized technology, is faster, but more exacting. Success imposes more than mere speed of decision and action. It requires the full support of research, experience and acquaintance with geographical as well as process, raw material, labor, and water supply factors.

Paper mill executives with an eye on the South will find of timely interest the information we have assembled. Discussion involves no commitment.

J. E. SIRRINE & COMPANY
Engineers
Greenville South Carolina

INDUSTRIAL NEWS

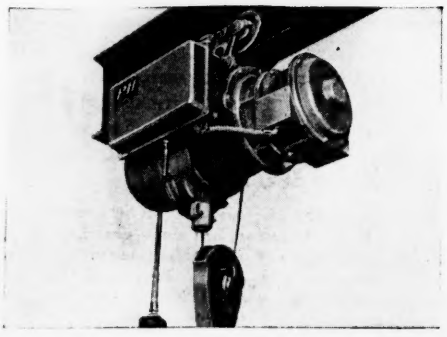
Oil and Gas Meetings for Houston

The Oil World Exposition will be held in the new million dollar coliseum under construction at Houston, Tex., October 11 to 16, while the American Gas Association will hold its annual convention the first three days of the Exposition, with the annual meeting of the Independent Petroleum Association of America to be held on the last three days. The Rice Hotel at Houston has been selected as official headquarters of the Association and members may make reservations for the annual meeting dates by writing the hotel.

Exposition of Chemical Industries

As a preliminary to the 16th Exposition of Chemical Industries, to be held at Grand Central Palace, New York, December 6 to 11, 1937, Chares F. Roth, Manager of the Exposition, Grand Central Palace, has issued a folder calling attention to the coming Exposition and outlining what transpired at the last one. With industries served by the Exposition now in high production, it is expected that leaders of these industries will make this biennial visit with serious intentions of studying equipment, materials, supplies and services to improve their operations.

Now VARIABLE SPEED-
WITH PUSH-BUTTON CONTROL



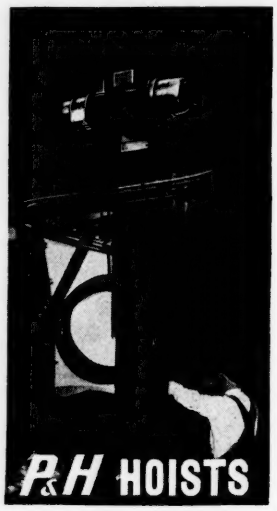
Again, P&H leads the way — gives you variations in hoist speeds with push-button control. It's simple, dependable, and a full range of five speeds covers every need down to the slow, precise movement for the most delicate handling jobs.

For Lifting, Lowering or Horizontal Movement of Loads

In all types of manufacturing plants, warehouses, loading platforms, etc., P&H variable speed control gives your material-handling operations the change of pace to meet every requirement for speed and safety in the lifting and transporting of materials. Variable speed control is also available with pendant rope on all sizes of P&H hoists.

A new bulletin describes the entire line of P&H hoists from 1/8 to 15-ton capacity. A post card will bring your copy. Ask for bulletin H-5. Harnischfeger Corporation.

4427 W. National Ave., Milwaukee, Wis.



Handle it "Off the Floor" with

HARNISCHFEGER
CORPORATION
HOISTS • ELECTRIC CRANES • P&H WELDING MOTORS • ARC WELDERS • EXCAVATORS

Machinery Distributors to Meet

National conventions of machinery manufactures and distributors are to be held May 10, 12 at the Peabody Hotel, Memphis, Tenn. Organizations participating include: Southern Supply and Machinery Distributors' Association, Alvin M. Smith, Smith-Courtney Co., Richmond, Secretary; American Supply and Machinery Manufactures' Association, R. Kennedy Hanson, Clark Building, Pittsburgh, secretary-manager, and National Supply and Machinery Distributors Association, H. R. Rinehart, 505 Arch Street, Philadelphia, secretary.

Blaw-Knox Acquires Power Piping Company

The property and business of the Power Piping Company, of Pittsburgh, Pa., has been acquired by Blaw-Knox Company of that city, according to W. P. Witherow, president of the latter company. Power Piping Company was organized in 1916 and has designed, manufactured, and erected piping for power plants, oil refineries, sewage plants, water works and industrial plant usages for all pressures and purposes. It installed modern fabricating machinery and bending equipment in 1932 to increase production, and in 1934 added a sprinkler division.

Orders For Blaw-Knox Pulp Digesters

As a result of expansion in the kraft paper industry, Blaw-Knox Company, of Pittsburgh, Pa., has recently booked orders for six large sulphate pulp digesters, of all-welded construction, made from heavy plate approximately 1½ inches thick. When completed they are annealed in one piece and all-welded joints are X-rayed. The process equipment division of Blaw-Knox specializes in vessels of this type, which are usually built as large as can be shipped. Firms placing the orders for Southern installation include: Brunswick Pulp and Paper Company, Brunswick, Ga.; Chesapeake-Camp Corporation, Franklin, Va., and International Paper Company.

Westinghouse Record Orders

Orders booked by Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa., for the three-month period ended March 31, 1937, amounted to $74,242,584, according to an announcement at the annual meeting of stockholders of the company. The amount of orders was the highest for any quarter on record and unfilled orders for the same period were the highest since 1923, the latter amounting to $73,735,326. Directors David K. E. Bruce, Paul D. Cravath and Marshall Field were reelected members of the Board, and the election of G. H. Bucher Executive Vice President of the company and President of the Westinghouse Electric International Company, as a director, was announced.

Insurance Company Celebrates Founding

Claiming the distinction of being the oldest American liability insurance company and the oldest mutual liability insurance company in the world, the American Mutual Liability Insurance Company, of Boston, Mass., observed the fiftieth anniversary of its organization April 19 to 21. Because of its pioneer position and its mutual form of organization, the company has exerted greater influence perhaps, on the history of liability insurance in this country than any other single unit.

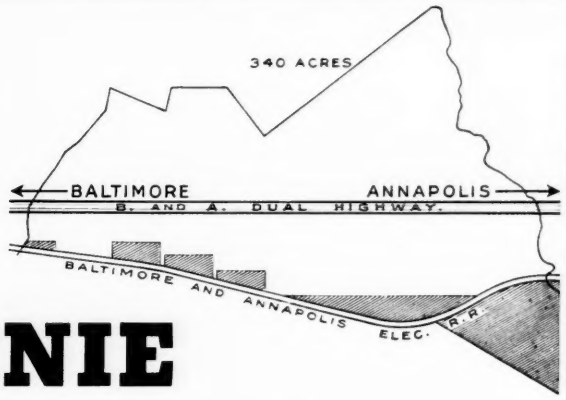
General Motors Diesel Engine Division

President Alfred P. Sloan of General Motors Corporation, Detroit, Mich., announces the formation of the Diesel Engine Division, which will manufacture a line of Winton Diesel engines, beginning with a 20-horsepower, single cylinder unit, up to a 160-horsepower, six cylinder unit. Single cylinder units are designed for stationary use only, whereas multi-cylinder units are all adaptable to marine, stationary or commercial vehicle use. Manufacture of Diesel engine fuel injectors, which has heretofore been carried on in General Motors Research Laboratories, will be transferred to the new plant. A tract of 75 acres of land has been purchased and the construction of the plant will be accomplished as soon as possible, the first unit to be an engineering laboratory for development and test work on Diesel engines for Winton Engine Manufacturing Company and Electro-Motive Corporation, as well as for the new division. This laboratory will also contain a Diesel-electric power plant for supplying all power to the manufacturing plant. Heating requirements will be supplied through an electrically-heated boiler absorbing current from the test dynamometers. W. T. Crowe has been appointed general manager of the new division.

(*Continued on page* 70)

INVESTIGATE —before TOO LATE

Unusually fine location for assembly or fabricating plant



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Write or wire us for the landscape plat and detailed information regarding this strategic location—superior not only for manufacturing, but also for both domestic and foreign shipping. In the heart-zone of three ideal American cities:

BALTIMORE...WASHINGTON...ANNAPOLIS

There's a scramble on now for preferred factory locations. Start your investigations immediately. Otherwise, time may work against you. Factory locations in this area will doubtless be at a premium in the near future.

The Glenburnie Development Co.
1409 L Street, N. W., Washington, D. C.
GEORGE B. FURMAN, President

WRITE TODAY!

MILL BUILDING
FOR RENT

New brick building located within twenty-five miles of Charlotte, N. C. Building is 40 x 180 feet, two stories, 14,000 square feet floor space, mill construction, sprinkled. Well suited for hosiery, knitting or overall mill. Labor plentiful. Ideal location. Owners would consider taking stock for value of building. Address

No. 9358 c/o Mfrs. Record

The Bankers Desk Directory Since 1836

The American Bank Reporter

Published March, July, November

Contents

A complete list of banks, bankers, savings banks and trust companies in the United States, Canada and principal cities of foreign countries, with names of officers, capital, surplus and undivided profits, loans, deposits, securities, cash and due from banks, members of the Federal Deposit Insurance Corporation, principal correspondents, attorney list, etc.

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HALSEY TAYLOR
COOLER FOUNTAINS

INDUSTRIAL NEWS

(*Continued from page* 68)

Metal Trades Association Convention

The Thirty-Ninth Annual Convention of the National Metal Trades Association, will be held at the Palmer House, Chicago, May 27 and 28. Subjects to be discussed will treat with industrial relations problems. Harry S. Flynn is secretary of the Association, with offices in the Peoples Gas Building, Chicago.

Lux-Rich Fire Protection System

Lux-Rich Reports, official publication of Walter Kidde and Company, Inc., of Bloomfield, N. J., published in the interest of Lux-Rich-Zonit System of Fire Detection and Extinction, carries as a leading feature an interesting illustrated article on "Electric Power in Alabama," in which it is pointed out that the vast power system of the Alabama Power Company uses power factor corrective devices in the form of synchronous condensers located at proper points, and these condensers have been protected against fire damage by automatic Lux systems operated by the differential relays of the condenser.

Koppers Company Annual Report

According to the annual report for 1936 of the Koppers Company, Pittsburgh, Pa., there were substantial increases in sales and net income, and a 34.6 per cent increase in employment. Net sales and operating revenues for the year totaled $37,153,513 compared with $32,224,685 for 1935. Income available for interest charges and amortization of debt discount and expense totaled $5,094,466 for 1936, compared with $4,082,866 for 1935, while income available for preferred stock dividends amounted to $3,065,629 in 1936, as against $1,588,132 for 1935.

Levy Heads Southwestern Division of Petroleum Institute

A. G. Levy, of The Texas Company, Shreveport, La., has been elected chairman of the Southwestern District of the American Petroleum Institute, Division of Production, to serve until 1938. R. D. Risser of Shell Petroleum Corporation, Kilgore, Tex., has been elected chairman of the district's advisory committee. Other officers and committee members include: Vice-chairmen, for South Texas, George B. Corless, Humble Oil & Refining Co., Houston, Tex.; for East Texas, W. S. Morris, East Texas Engineering Assn., Kilgore; for West Texas, H. H. Hardison, Standard Oil Co. of Texas, Midland, Tex.; for New Mexico, C. G. Staley, Lea County Proration Office, Hobbs, N. M.; for Arkansas, W. C. O'Ferrall, Lion Oil & Refining Co., El Dorado, Ark.; and for Louisiana, W. A. Alexander, Shell Petroleum Corp., Iowa, La.; secretary-treasurer, Carl Hickman, Dewey T. Ross Engineering Corp., Houston. In addition a large and representative advisory committee has been elected.

Displays G-E Electrical Products

Bringing together in 7000 square feet of floor space a complete line of representative products of General Electric Company and its affiliates, an exhibit of electrical products for industry has been opened in the General Electric Building, 570 Lexington avenue, New York.

TRADE LITERATURE

USS ROOFING AND SIDING GUIDE—
Booklet—presenting sales material and catalogue information on various types of roofing products made by United States Steel Corporation Subsidiaries; illustrates types of sheet metal roofing and siding, together with accessories, and present useful tables of roofing information.
United States Steel Corporation Subsidiaries, P. O. Box 176, Pittsburgh, Pa.

METAL POLISHING—
Booklet—"Grits and Grinds," devoted to Metal Polishing, with leading articles on "Fundamentals of Metal Polishing" and on "The Flexibility and Shape of Polishing Wheels and Their Relation to Performance."
Norton Company, Worcester, Mass.

BLOWERS AND COMPRESSORS—
Bulletin 1910—describing and illustrating types of Allis-Chalmers blowers and compressors including centrifugal, rotary and reciprocating units which can be furnished with their prime movers, whether electric-motors, steam turbines, or steam engines, for all ordinary applications involving air or gas.
Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

AMERICAN MUTUAL MAGAZINE—
Publication—Fiftieth Anniversary Number, presenting "succinct accounts of the evolution of important phases of workmen's compensation insurance together with American Mutual historical material of interest to policy-holders."
American Mutual Liability Insurance Company, Boston Mass.

BITUMINOUS DISTRIBUTORS—
Bulletin No. A. D. 1673—devoted to Austin-Western Bituminous Distributors, illustrated.
The Austin-Western Road Machinery Co., Aurora, Ill.

(*Continued on page* 88)

By the Insurance Department
CONDENSED STATEMENT
SHOWING THE CONDITION OF THE

Fidelity & Guaranty Fire Corp.
Baltimore, Md.

DECEMBER 31, 1936

Total income during the year	$3,858,285.48
Total disbursements during the year	3,394,074.01
Total admitted assets	6,535,420.63
Total liabilities except capital	$3,534,727.84
Capital actually paid up in cash $1,000,000.00	
Surplus over all liabilities 2,000,692.79	
Surplus as to policy holders..	3,000,692.79
Total liabilities	$6,535,420.63
Net Premiums in United States December 31, 1936	$5,562,830.54
Risks written in Maryland during 1936	34,799,466.00
Premiums on Maryland business in 1936	168,487.98
Losses paid in Maryland in 1936	70,077.81
Losses incurred in Maryland in 1936	56,998.81

STATE OF MARYLAND
Office of the
STATE INSURANCE DEPARTMENT
Baltimore, Md., March 1, 1937

I hereby Certify, That the above is a true abstract, taken from the Annual Statement of the FIDELITY AND GUARANTEE FIRE CORPORATION, BALTIMORE, MD., for the year ending December 31, 1936, now on file in this Department.

W. S. HANNA,
Insurance Commissioner.

FLORIDA'S

geographical location with the Atlantic on the East, the Gulf on the West, insures a year 'round temperate climate.

In Florida You Will Find:

A comfortable place to live—summer and winter.

Fruits and vegetables growing during the off season in other parts of the nation.

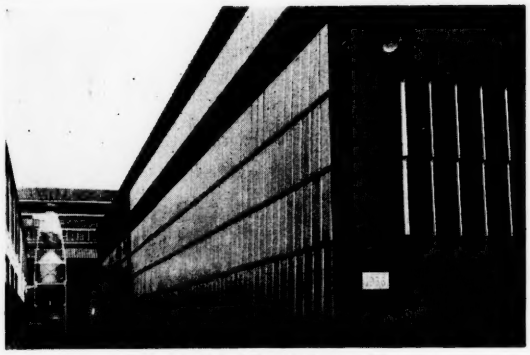
The vacationists' paradise, hunting, fishing, surf bathing and other outdoor sports and recreational pastimes.

Advantages offered many lines of industry.

Make a survey of the State from the angle of your particular likes or needs.

For literature and general information—write

MODEL LAND CO.
Flagler System
ST. AUGUSTINE, FLORIDA



U. S. PIPE & FOUNDRY CO.
CHATTANOOGA, TENN.
C. W. G. in Side-Wall Windows

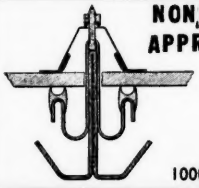
SPECIFY CORRUGATED WIRE GLASS FOR SKYLIGHTING

They diffuse light with a minimum of shadows. They are self cleaning and can be used on a roof of any material, and supply daylight in manufacturing and industrial plants—an important factor in all modern production.

Also used with excellent results on sidewalls, marquises, canopies and wherever daylight is needed.

Our Engineering Service Department can aid you on your skylighting problems. Write or wire.

PENNSYLVANIA WIRE GLASS CO.
1612 MARKET STREET
PHILADELPHIA, PENNSYLVANIA



NONPAREIL PUTTYLESS SKYLIGHTS
APPROVED TIN-CLAD FIRE DOORS AND HARDWARE
Made in Baltimore
NONPAREIL SKYLIGHT CO.
PHILIP H. LENDERKING, PROP.
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THE NORTH CAROLINA GRANITE CORP'N.
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THE MONARCH OF FLOORS

We contract to install guaranteed cement floors anywhere in the Country.

Either your job specifications, or a Ven-ite specification; figured optional with yourselves.

Ven-ite Floors embody several types as follows:

VEN-ITE HEAVY DUTY INDUSTRIAL FLOORS
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VEN-ITE ACID PROOF FLOORS
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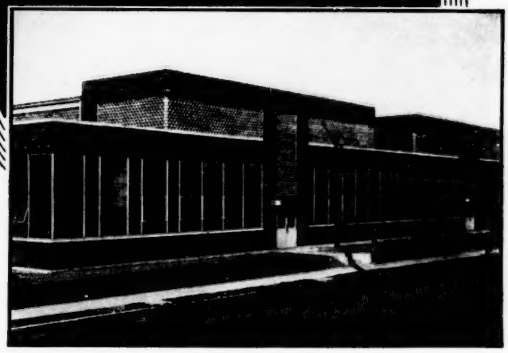
Ventilate for Efficiency



New plant of Standard Register Co., Dayton, O., ventilated with Heat Valve. The Austin Co., Engineers and Builders.

Summer heat saps vitality—deoxidized air lowers efficiency—both slow up production, increase your costs, and make unsatisfactory working conditions. To get the best from your employees supply them with plenty of fresh air—and make them comfortable in summer heat.

You can do it economically with a Swartwout-Dexter Heat Valve—the modern continuous opening ventilator that supplies "more roof opening per dollar" than heretofore available. It's especially designed for removing excessive heat, smoke, and fumes and for ordinary or special ventilation requirements—is adaptable to all types of buildings and roofs and is inexpensive to install.

Write your nearest office today for data and literature furnished without obligation.

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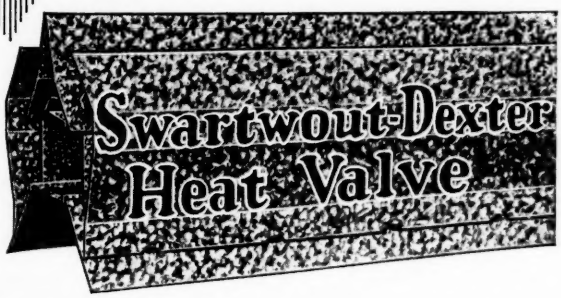
New Orleans:	Devlin Bros., 1003 Maritime Bldg.
Houston:	H. T. Rieley, Lamar Annex
Memphis:	Tri-State Iron Works, 677 N. Main St.



The Original (Patented) Continuous Ventilator

SAMUEL HENRY SHEIB

Richmond and the South have lost a true friend and valuable citizen in the death of Dr. Samuel Henry Sheib, President of Froehling and Robertson, Inc.

Not only as a gifted scientist, standing in the front ranks of his profession of chemistry, and in the various activities in which he was engaged will Dr. Sheib be missed, but as a man whose understanding and sincerity in his contacts with others drew people to him.

Sympathy for his family and associates will come from a wide circle.

Natural Gas Serves Many Industries of the South

(*Continued from page 43*)

Natural gas lines now serve cities in Texas, Oklahoma, Louisiana, Mississippi, Arkansas, Alabama, Florida, Georgia, Kentucky, Tennessee, Missouri, Virginia, West Virginia and Maryland.

Among larger cities served and many small communities on branch lines of systems reaching the metropolitan centers of the South are:

Dallas, Ft. Worth, Houston, San Antonio, Beaumont, Austin, Brownsville, Port Arthur, Wichita Falls, Laredo, Orange, Marshall, Vernon, Lufkin, Nacogdoches, Palestine, Jacksonville and Tyler among others in Texas; Oklahoma City and other communities in Oklahoma; Jackson, Gulfport, Meridian, Vicksburg, Tupelo and others in Mississippi; New Orleans, Shreveport, Monroe, Bogalusa, Baton Rouge, in Louisiana; Anniston, Birmingham, Gadsden, Montgomery, Opelika, Selma, Tuscaloosa and others in Alabama; Pensacola, Fla.; Atlanta, Cartersville, Cedartown, Columbus, Griffin, Macon, Milledgeville, Newnan, Rome and other towns in Georgia; Little Rock and Pine Bluff, Ark.; St. Louis, Mo.; Memphis, Tenn., and Washington, D. C., which is supplied along with several West Virginia cities.

Factory Lighting

(*Continued from page 50*)

watt lamp, however, must be burned in a vertical position, usually base-up, although base-down burning lamps are available.

When the 250-watt lamp is started it takes 4 to 6 minutes to reach the full efficiency. With the 400-watt lamp full efficiency is reached in about twice that time. The lamps will not relight after a current interruption until they have cooled enough to reduce the vapor pressure sufficiently to allow the arc to strike again which will occur automatically if the current is on.

The color of the light emitted by the mercury lamps has the characteristic mercury vapor line spectrum in contrast to the continuous spectrum of the incandescent lamp. Red is practically absent. The result is that although the light itself has a bluish-white cast, materials of certain colors such as reds are not recognized while yellows and greens are emphasized. Combined with the continuous spectrum of the incandescent lamps, which are rich in red, the resultant light is a synthetic white, although by no means could it be considered a "color matching" white because of the emphasis it gives yellows.

In common with all electric discharge lamps special transformer auxiliaries are essential. These may be located either at the lamp or at a distance from it so long as no other current is drawn from the auxiliary equipment. This permits the regulators for a number of lamps to be grouped together. One plant in which this practice was followed for about 1,000 lamps, built framework on which the auxiliaries of high power factor types were grouped. By carefully numbering the switches and lamps, the maintenance men and section foremen have no trouble in lighting or servicing individual units. If anything should go wrong with the auxiliary equipment they are in such a position that they can be readily checked and repairs and substitutions made.

From a humanitarian standpoint, proper lighting cannot be adequately estimated. Its contributions to health, well-being and the joy of living are without price and will certainly outweigh the dollars and cents paid for it. However, analyzed on a strictly business basis, good lighting is found to be a paying investment. This is not surmise, as evidenced by the following table giving the results of an interesting laboratory experiment conducted some months ago. The level of illumination for test purposes was raised 3 to 12 footcandles and the results show that the efficiency of some individuals was increased by as much as 40 per cent.

Classification of work	*Percentage Increase in rate of working*
Those with normal eyes	14
Those with poor eyes	22
Fast workers	28
Slow workers	40

Further proof that good industrial lighting pays is evidenced by the installation in the American Metal Works of Philadelphia where the level of illumination on their turret lathes was raised from 11½ footcandles to 20 footcandles, with a resultant increase in production amounting to 12.35 per cent.

Better lighting reduces the possibility of spoiling materials and ruining tools and machinery through faulty work. Better lighting reduces eyestrain which means fewer headaches and aggravated minor ailments which are responsible for much lost time. Better lighting improves morale.

The footcandle values given in the accompanying table represent standards for various general requirements in the factory. These recommendations are extremely conservative when compared with levels of illumination that are to be found outdoors. They represent practical steps towards the much higher footcandle levels that appear to be ideal.

Illumination values above 30 footcandles may, in some instances, be provided from a general lighting system. In other cases, however, it will be found more economical to provide a combination of general lighting plus supplementary.

	Footcandles
Assembly:	
Rough	10
Medium	20
Fine	50-100
Extra Fine	100 or more
Engraving	100 or more
Inspection:	
Rough	10
Medium	20
Fine	50-100
Extra Fine	100 or more
Machine Shops:	
Rough Bench and Machine Work	10
Medium Bench and Machine Work, Ordinary Automatic Machines, Rough Grinding, Medium Buffing and Polishing	20
Fine Bench and Machine Work, Fine Automatic Machines, Medium Grinding, Fine Buffing and Polishing	50-100
Extra Fine Bench and Machine Work, Grinding — Fine Work	100 or more
Steel and Iron Mills, Bar, Sheet and Wire Products:	
Soaking Pits and Reheating Furnaces	5
Charging and Casting Floors	10
Muck and Heavy Rolling, Sheering, rough by gauge, Pickling and Cleaning	10
Plate Inspection, Chipping	30-50
Automatic Machines, Light and Cold Rolling, Wire Drawing, Shearing, fine by line	15

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Distributors of Sand-Gravel-Commercial Slag

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Our complete organization with years of experience in successfully executing large construction contracts of various kinds is prepared to undertake the construction of earth, masonry and concrete dams, drydocks, dredging of all kinds, river and harbor improvements, deepening channels, hydraulic filling and rock work, tunnels, railroad construction, sewers and waterways.

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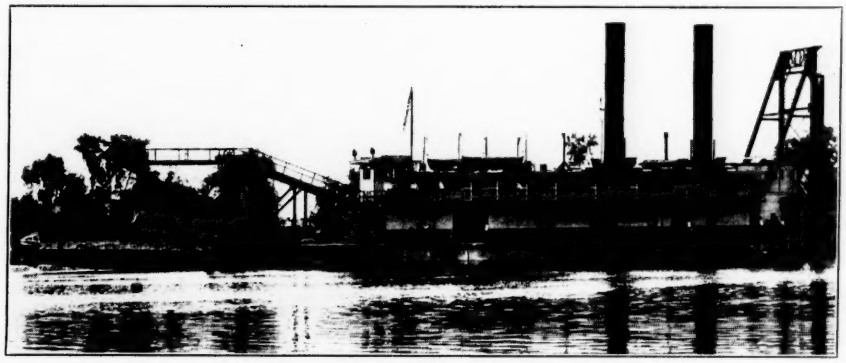

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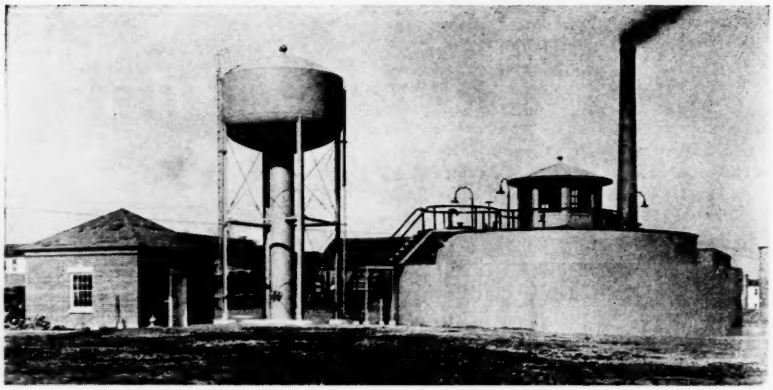

Morse Filter System for D.C. Penal Institutions

ABOUT 3,000 persons in dormitories of the District of Columbia penal institutions, located near Lorton, Fairfax county, Virginia, are served by a Morse filter plant of 1,250,000 gallons per day capacity.

The plant is of welded steel plate construction furnished by the Chicago Bridge & Iron Co. It is a circular layout, with a coagulating basin making up the outer ring surrounding the four rapid-sand type filters, which in turn surround the control house. The outer ring holds 60,000 gallons of water drawn from wells, and from Elk Horn Run and Occoquan Creek nearby. The institutions' water demands vary from 450,000 gallons a day in winter to 700,000 gallons a day in very hot weather. The plant was constructed under the direction of Captain Howard F. Clark, assistant engineer—Commissioner of the District of Columbia. General layout and supervision of the work was in charge of John T. Schaaf, Harry C. Slack, and Herbert R. Haar, construction engineer.

FACTS ABOUT ATLANTA—
Booklet—1937 edition of "Facts in Figures About Atlanta," presenting authentic data concerning the Atlanta area, covering information most often asked for by business men.
The Industrial Bureau of the Atlanta Chamber of Commerce, Frank K. Shaw, Secretary, Atlanta, Ga.

Cotton Manufacturers Meet May 12-14

DELEGATES to the forty-first annual convention of the American Cotton Manufacturers' Association, meeting in Washington, D. C., May 12 to 14, will hear eight speakers lead by Dr. Claudius T. Murchison, Donald Comer, Senator John H. Bankhead, Harry L. Hopkins, and David R. Coker, it is announced. Attendance at the meetings, to take place in the Mayflower Hotel, promises to be large, with the efforts of Mr. Comer, the Association president, to make this year's meeting one of the most important in the history of the group realized.

Keynote of the sessions will be the intimate relations between the cotton textile industry and agriculture. Other subordinate themes will be indications of methods of intelligent cooperation between government and business, a pressing problem at this time.

W. M. McLaurine, secretary-treasurer of the association, lists other speakers not mentioned above as: Edward O'Neal, president, American Farm Federation; C. S. Ching, director of industrial and public relations for the United States Rubber Products Company, and Cason J. Callaway, chairman of the board of Callaway Mills, LaGrange, Ga.

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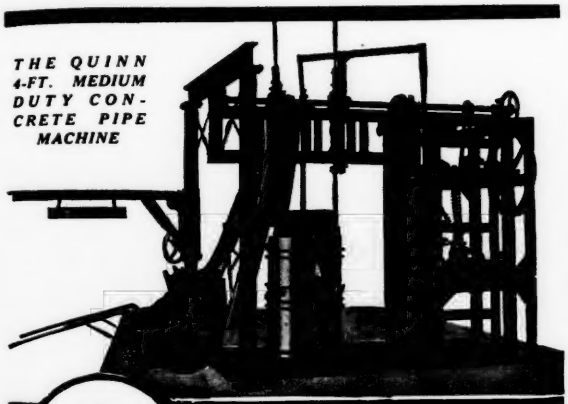

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"Quinn Process" concrete pipe surpasses most specifications because of its 60% greater compression test and lowest absorption. "Quinn Process" produces strong, sturdy, long lasting, smooth finished pipe.

Make better pipe in all sizes, at lower cost, with Quinn Concrete Pipe Equipment. Write for information and prices on Quinn equipment for producing all types of concrete pipe quicker, better and more economically.

QUINN 4 ft. Medium Duty PIPE MACHINE

The Quinn 4-foot Medium Duty Concrete Pipe Machine, shown above, makes pipe 12" to 60" in diameter in 30", 36" and 48" lengths. Machine tamping, 400-pound trip-hammer action blows at rate of 370 per minute packs concrete in dense mass—produces smooth finish pipe of super-strength and lowest absorption.

Our 6-foot Machine makes pipe 12" to 60" in diameter in 36", 48" and 72" lengths. This machine has capacity up to 100 tons a day. Write for details, capacities, costs, etc.

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Quinn Concrete Pipe construction is recognized as standard by many municipalities, drainage, sewerage and irrigation districts. In asking for bids on pipe, "Quinn Standard" or equivalent means Quinn pipe has no superior.

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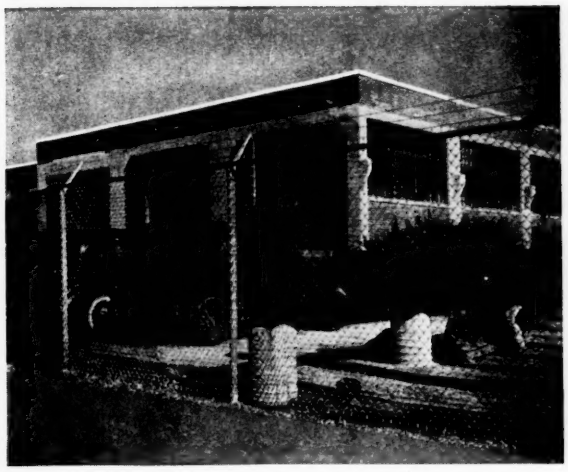

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15 Plants Drawn by Louisiana's No-Tax-For-10-Years Pledge

FIFTEEN new industries have pledged themselves to spend $11,000,000 in establishing plants in Louisiana, following the approval by voters of the State of a no-tax-for-10-years program of industrial development, State officials estimate. Governor Leche says the influx of new industry has "merely begun," and that applications are coming into his office nearly every day. The Governor sees the expansion of business thus brought about as a definite counter-balance to the State's traditional over-emphasis of agriculture.

Corporations deciding as of April 18, to start business in Louisiana included the following:

Ethyl Gasoline Corporation, tetraethyl lead manufacture. (2)

Chalmette Petroleum Corporation, "cracking" plant.

Clinton Feed, Oil, and Gin Company, cotton by-products, tung nut oil, and fertilizer.

Chicago Mill and Lumber Company, veneer, boxes and box materials.

Swift and Company, meat packing.

Continental Can Company, tin containers. (2)

Solvay Process, chlorine.

Continental Oil Company, high grade gasoline from surplus natural gas. (2)

Standard Oil Company of Louisiana, lubricating oil, high grade gasoline. (2)

Compressed Industrial Gasses, Inc., oxygen and acetylene gas.

Byrd Roofing Company, roofing materials.

Petroleum — Crown Prince of the South

(Continued from page 42)

able. But these reserves do assure that there is no imminent danger of shortage."

Following is a table showing the distribution of reserves in Southern fields:

PROVEN PETROLEUM RESERVES SOUTHERN STATES

(As Estimated by the American Petroleum Institute for January 1, 1937)

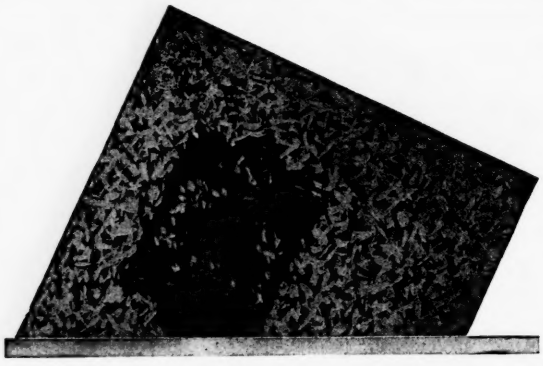
States	Barrels
Arkansas	84,000,000
Kentucky	39,000,000
Louisiana	524,000,000
Oklahoma	1,141,000,000
Texas	6,422,000,000
West Virginia	32,000,000
Total	8,242,000,000
Total, United States	13,063,000,000

Modern Methods Permit of Estimating Oil Field Yield

Modern methods of oil-well drilling and of oil production enable engineers to determine, from the pressure existing more than a mile below the surface, how much an oil field is likely to yield with reasonable exactitude. As a matter of fact, it is a comparatively simple task to estimate the amount of oil in a field, provided exploratory wells have been drilled. Exploratory drilling is no longer a "hit or miss" proposition, for in the past 17 years prospecting has reached a high degree of perfection and much of the guess work has been eliminated.

Geophysical surveying with the seismograph and gravimeter determine the area of the field, improved coring practice in well drilling reveals the thickness of oil-bearing formations, the analysis of well samples tells the percentages of pore space filled with oil. These facts, together with a report on the quantity of oil already extracted, provide sufficient data for a fairly accurate estimate of the field's future yield.

Sometimes, studies of a proven oil field reveal facts about regions in which future reserves may be found. This has been the case in East Texas, a field which has provided plenty of surprises, as well as oil. Experiences in this mammoth field comprise a new chapter in oil-field geology. It was discovered, by accident, in an area previously believed to be lacking in oil. In its development it has confounded previously accepted theories. New geological, and other, discoveries have tended to become so commonplace that field men working in East Texas have learned to expect the unexpected and to turn it to good use elsewhere.



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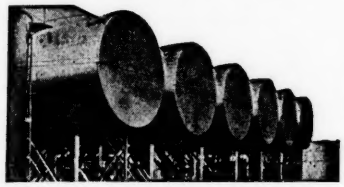

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Coolers	Gasoline Tanks	Pressure Tanks	Vacuum Tanks

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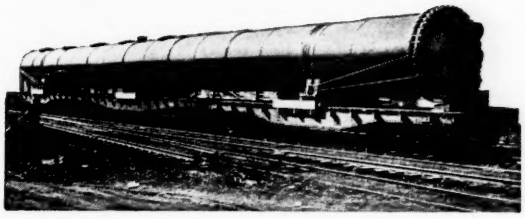

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$44,000,000 PEANUT CROP RANKS WITH BIG BUSINESS

Shelling and Oil Industry Adds to Its Commercial Importance in the South

MORE than 2,701,000 acres of peanuts were harvested last year in the Southern States, which produce practically the entire domestic supply. With a production of 1,300,540,000 pounds, valued at $44,150,000 in 1936, the South's peanut industry is not a "peanut" business. Shelling and crushing plants further add to the value of this important crop giving it high rank in the commercial activity of many sections.

As Georgia produces more than one-third of the country's peanuts, having an output of 447,700,000 pounds valued at $14,774,000 in 1936, it also leads in the peanut shelling industry. Dawson, Terrell County, Ga., claims to be the "Spanish Peanut Center of the World." Real development of the peanut shelling industry at Dawson dates back to 1916 when the Southern Cotton Oil Company, the pioneer in the South to establish peanut shelling and crushing plants, erected a plant at that point. Following destruction by fire in 1927 and again in 1935, the plant was rebuilt each time and the company's continued faith in the peanut as a commercial crop, and in Dawson as a peanut market, was evidenced by the fact that a third shelling plant more modern and up-to-date was erected.

The Dawson Cotton Oil Company, which crushed more than one-third of the Spanish peanuts crushed in the Southeast under the Government's crushing program in 1934, erected in 1935 a modern shelling plant which is one of the largest in the country. This company is making, for the first time in Georgia, considerable quantities of peanut flour which is being tested by several organizations. Experiments, which are expected to demonstrate that peanut flour is an excellent food for human consumption as a corrective diet, and investigations of new uses for peanuts and peanut products, are being conducted in Dawson with prospects bright for the opening of a new outlet for the important Southern peanut crop.

Another development of the industry at Dawson is a perfected peanut stoner, which removes rocks and all foreign matter heavier than peanuts, the invention of H. E. Suggs, Dawson Sheet Metal Works. The machine has a capacity to handle 5 tons of farmers' stock peanuts per hour with a lift of 18 to 20 feet. More than a dozen are now operating in shelling plants in South Georgia.

Dawson held the first exclusive peanut festival in 1935 and another celebration is scheduled for October, 1937, by the Southeastern Peanut Festival Association to honor the "lowly" peanut.

Cooling Small Industrial Buildings in Summer

IN connection with industrial plants there often are small out buildings used for housing repair shops, special clerical and labor forces, etc. These buildings are usually built of wood, and in the summer time they are "hot as blazes." These small buildings can be kept comfortably cool in much of the hottest weather, at small cost, by applying simple scientific principles.

It is well known that the evaporation of water causes coolness, or "extracts heat." That is why one feels cool when one's perspiration evaporates. To keep a building cool, "make the building perspire." This is done by running a few water pipes along the ridge of the roof and under the eaves—pipes with rows of holes drilled in them to permit wetting of the roof and sides of the building by sprinkling. As soon as the surface of the building is wet, turn off the water. The amount of water required is not great. The evaporation of the water will then cool the building. An automatic device for wetting the outside of the building every half hour or hour, depending upon the rate of evaporation, can be installed if one wishes to spend a little more money.

The results, of course, will not compare with the results of high grade manufactured air conditioning apparatus, especially in humid weather. But when humidity is low this method is far superior to no cooling system at all. By all means install *real* equipment if you can afford it.

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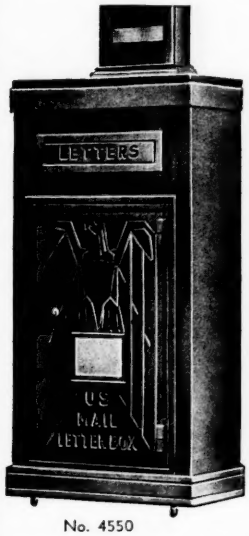

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Northern Hard Rock Maple Flooring

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MEMBERS OF MAPLE FLOORING MANUFACTURERS ASSOCIATION

Place of Naval Stores in Southern Forest Situation

(*Continued from page 47*)

duction continuing for many years — usually 15 to 18—with an income for each year worked-for-turpentine, while the final use for timber materials and pulpwood only secures an income once, namely when the timber is cut down.

Our past annual production of naval stores from living pines, has ranged from a maximum of 750,000 units in 1908-1909 to a minimum of 340,000 units in 1918-19, and averaged about 500,000 units during the last few years. The unit consists of one barrel of turpentine and three and one-third round barrels of rosin. According to the authoritative estimate of Captain I. F. Eldredge, Regional Survey Director of Southern Forest Experiment Station, New Orleans, it can be continued indefinitely at about 550,000 units, or, within 15 years may be increased to at least 800,000 units.

The recent annual production of 500,000 units has been secured by working-for-turpentine approximately 12,500 "crops" of 10,000 faces each on 125,000,000 turpentine pines, that were only thinly distributed, they required 500 acres or more for each crop and only averaged about 20 turpentine trees per acre. By means of reforestation starting with say 600 to 1,000 young slash or longleaf pines per acre, then at approximate times of cutting-out some of the smaller pines to improve the growth and quality of the remaining stand, and including the working-for-turpentine of suitable timber during practically half of its life—timber that matures at from 25 to 40 years of age, according to conditions and requirements—the "crop" should average 100 turpentine pines per acre.

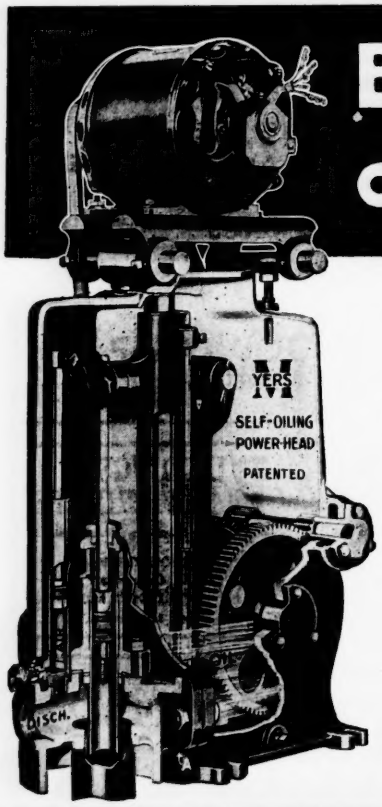
With the average number of turpentine pines per acre thus quadrupled, it is apparent that the price per crop of turpentine leases could be reduced to half the present average and still secure double the present annual net returns per acre to the timberland owner, and with similar increased supply and possible lower unit prices for timber materials. Therefore the development of a sufficient increase in demand for their products, to fully absorb the larger supply that will then be available, should not be difficult, with lower unit prices then possible.

Forest Protection

As some potential owners of Southern pine lands have mentioned the possibility of uncontrolled forest fires causing material damage or serious losses to Southern forests, it is only necessary to mention that forest fire protection has become quite general and effective at a cost of a few cents per acre per annum, and that with forest fire insurance now available this slight hazard has been eliminated.

However, the recent large investments in Southern pulp and paper mills and timberlands, brings a new industry with more favorable conditions into the Southern forest situation. Their large investments in Southern mills and lands, is a fortunate condition. Their need of new large and continuous supplies of pulpwood at reasonable cost, while their Northern supplies are decreasing and prices increasing, together with Dr. Herty's demonstration of the suitability of Southern pinewood for white paper making, make our Southern pine timber resources and possibilities attractive. The promptness and completeness with which they have seen and availed themselves of their opportunity, evidence the qualities and ability which are needed in our Southern forest situation.

So instead of fears that the increasing pulpwood requirements will lead to the gradual exhaustion of our Southern pine forests, we should realize that their increasing investments in Southern mills and timberlands, hold the best possible promise of their determining and doing whatever is necessary or desirable to protect, conserve and perpetuate our Southern pine forests.



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Dependable Performance—that's what the name MYERS stands for in pumping equipment.

Regardless of what others may do, we continue to build Myers Self-Oiling Power Pumps for more years of better service.

Our quality standards speak for themselves in excellence of materials, superiority of construction, outstanding improvements and dependable performance. Our style and size range is widely diversified. Prices are still exceedingly favorable.

If you are interested in improving your water facilities for home, farm or factory, write us for catalog and complete information.

"When you think of WATER think of MYERS Pumps and Water Systems"

THE F.E.MYERS & BRO. CO.
ASHLAND, OHIO.

PUMPS—WATER SYSTEMS—HAY TOOLS—DOOR HANGERS

Modernize with American-Marsh PUMPS

HOW LONG SINCE

you checked the power requirements of your present pumps? Perhaps they cost more to keep than to replace with modern, highly-efficient American-Marsh Pumps, which may SAVE enough to pay for themselves in a year or two. Send for Bulletins.

AMERICAN STEAM PUMP COMPANY

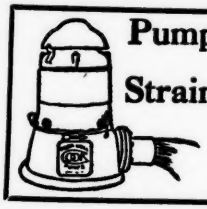
BATTLE CREEK, MICHIGAN . . . Pumps and Pumps Only Since 1873

JOHNSON WELL SCREENS

Will make better wells because they are tailor-made to fit any kind of sand or gravel formations and to resist the corrosion of any water.

Write for Bulletin M-1033. Contains valuable information about water wells.

Edward E. Johnson, Inc., St. Paul, Minn.



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Strainers—and other well supplies

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EARLE GEARS

Cut Spur, Bevel, Herringbone, and Worm Gears

All sizes. Every description. Operating Machinery for Bridges, etc. "Less Simplex" Cold Metal Saws.

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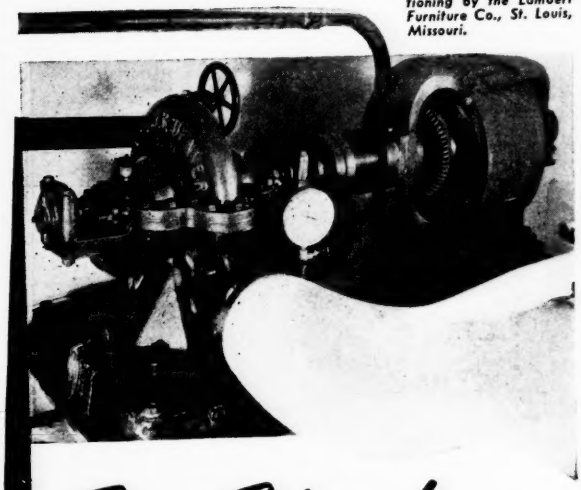
(HOT DIPPED PROCESS)

The largest job galvanizing plant in the United States

GALVANIZED PRODUCTS FURNISHED

Joseph P. Cattie & Bros., Philadelphia, Pa.

Gardner-Denver 4" type E Horizontally Split-Case Single-Stage Centrifugal Pump used for air conditioning by the Lambert Furniture Co., St. Louis, Missouri.



Two Words Will Tell You Why This Pump Is RELIABLE

Look closely at the pump in the picture and you'll see the name that assures *proved* reliability—GARDNER-DENVER. Those words mean that the pump is backed by Gardner-Denver's reputation for high quality . . . that it is correct in every detail of design . . . that it has every feature assuring high efficiency and low upkeep cost. Specify Gardner-Denver Centrifugal Pumps for complete satisfaction. Full details gladly given on request.

GARDNER-DENVER COMPANY

Quincy, Illinois

Atlanta, Ga. • Birmingham, Ala. • Washington, D. C.
Knoxville, Tenn. • Houston, Texas • Dallas, Texas

GARDNER-DENVER

Since 1859

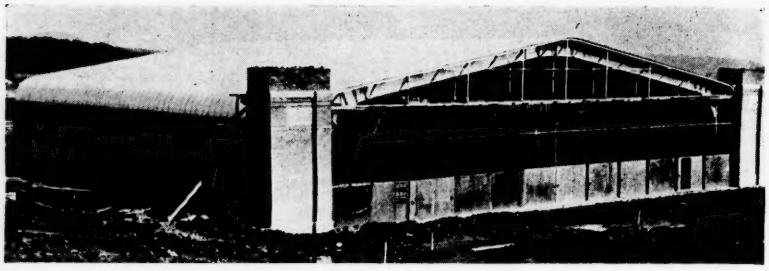
The Flying South

(*Continued from page 49*)

First flight now awaits only on the completion of ships and bases, the international permits to fly to and from Great Britain, Canada, and the Irish Free State having been granted Pan American.

Not to be outdone by Pan American Airways in the building of new trans-Atlantic airships, British Imperial Airways has ordered twelve new-design, 42 passenger 20-ton flying boats, each to cost about $200,000. Wing span of the ships is to be 127 feet, fuselage being 114 feet long. Four Armstrong Siddeley "Tiger" super charged motors will develope 3400 horsepower. The designers say the ships will be all-metal type high-wing, cantilever monoplanes. Imperial is stressing comfort in the craft it will use to fly the Atlantic passenger trade, with seven-course meals, a small bar, "several passenger salons, and a promenade deck." Pan American is placing most emphasis on speed, the British say.

In Bermuda, British Imperial Airways' men are fitting two flying boats and making test flights to the Coast in preparation for heavier-than-air craft service to connect America and Europe. For a Continental winter terminal, Imperial Airways has been considering a base at Charleston, S. C., whose 4 air fields include a large, modern municipal airport.



Progress View Tri-City Hangar, McKellar Field, Johnson City, Tenn.

Bent frame construction provides unusually wide span with doors opening full width of 120 feet and sliding into brick pylons at the sides. Photo, Courtesy H. H. Robertson Co.

Southern money has established 72 commercial airports. In addition, State, City and Federal cash allotted in 1936 to set up, extend and repair airports in the South totaled $15,768,000. According to the Works Progress Administration, 194 fields and ports were aided by these funds in the South.

Home fields of 2,342 planes are in the South. Licenses to fly have been issued to 3,703 Southern airmen. In the South are the country's largest training schools and aviation reservations for the Army and Navy.

Dotting the South are 732 airports and fields, 276 of them being municipal properties. A total of 110 intermediate landing fields, equipped with markers, directional radio beams, or identifying beacon lights, or both, emergency supplies of gasoline, oil, and water, are maintained by the Department of Commerce in Southern states. Airlines operating in the South spent approximately $1,800,000 for gasoline, oil and equipment in 1936. For the coming year, one company alone expects to spend in the South for supplies and personnel $1,600,000.

Florida leads the South in number of airports, with 144, including 58 municipal, 56 auxiliary, 13 commercial, 4 intermediate, and 13 Army, Navy, State and private ports. There are operated in the State five charter services, several flying schools; one international and two national transport lines. In other Southern States the industry is broadening its facilities and service to meet increasing demands.

ALLIGATOR

TRADE MARK REG. U.S. PAT. OFFICE

STEEL BELT LACING

The compression grip protects belt ends. | Made with precision. Drives straight. | Smooth on both faces. Embeds in belt.

For all belts—all speeds. Flexible. | Rocker Hinge Pin. Separable joint. | Great strength. Long life.

"Never Lets Go"

12 Sizes in Standard Boxes.

Made also in "Monel Metal" and non-magnetic alloy for special service, and in long lengths for wider belts.

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NEW YORK STATE'S LATEST

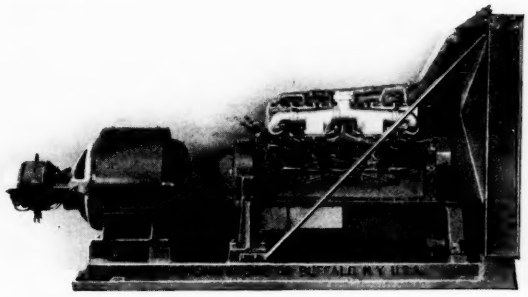
Troy-Menands Bridge—Albany Rensselaer Bridge

THE CITY OF BUFFALO'S

Michigan Avenue Bridge

are protected in emergency with

Sterling High Duty Internal Combustion Engines



On the Troy-Menands Bridge, Troy, N. Y., a 45 KW General Electric generator driven by a Sterling Petrel 6 cylinder 115 H.P. 1200 R.P.M. engine, direct connected.

The same Sterling Stationary engines which are employed for standby in 1200 cities and villages are used to guard against power interruption.

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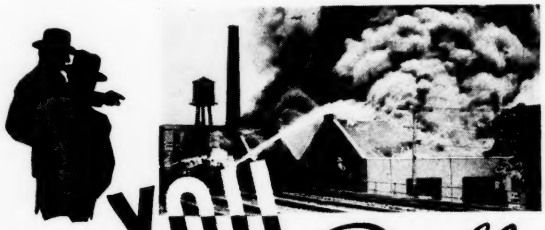

Could YOU Really Afford a Loss Like This?

OF COURSE THE BUILDINGS ARE INSURED. But who will replace the precious time . . . the wasted business . . . the potential profits . . . that are going up in smoke? Detex DETECTION could have stopped such loss—by making *sure* the fire was noticed while still controllable.

NOW IS THE TIME to guard your plant from the hazards of fire and theft by installing a Detex Watchclock System to check the activities of your watchmen. Firmly rooted in the South with its Atlanta office, Detex offers a nation-wide system of protection, with more than 80,000 Detex Watchclocks in successful use.

WRITE US TODAY for information on a thoroughly modern Detex System to fit your specific needs.

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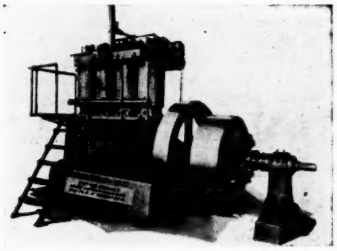
DETEX

MR-5-37

MERIAM REBUILT



GAS ENGINES

RUN LIKE NEW
LOOK LIKE NEW
RELIABLE AS NEW
ECONOMICAL AS NEW

COST HALF OF NEW

MERIAM Rebuilt Gas Engines are guaranteed with the same guarantee as when new.

The MERIAM *Co.*

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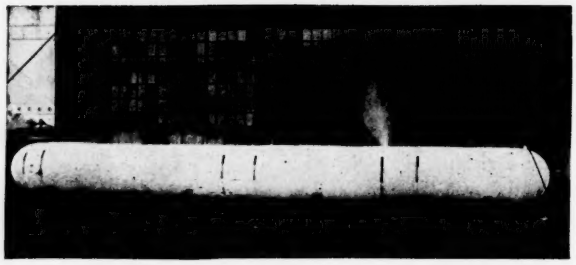

Test Pipe for Industrial Water System at Birmingham

SPECIFICATIONS on the industrial pipe line job at Birmingham, Ala., required one section of the pipe to be tested to destruction. A representative section of pipe 6 feet inside diameter, 48 feet long and fabricatd from ⅜-inch plates was selected for the tests at the Birmingham plant of the Chicago Bridge and Iron Company. Hemispherical ends were welded to the pipe and the section subjected to hydraulic pressure until rupture occurred.

The test resulted in a circumferential rupture in the girth seam. It first appeared as a slight leak at 680 pounds per square inch pressure. At 705 pounds per square inch pressure the rupture widened considerably and the leakage exceeded the capacity of the hydraulic line. Although the pipe was full at the beginning of the test, it stretched sufficiently to permit aproximately 575 gallons of water to be forced into it before rupture.

The rupture was then repaired and several small length-wise cracks across the girth welds were rewelded. The test was repeated and the pipe ruptured at 730 pounds per square inch. The second rupture was a longitudinal crack across the girth seam and made an opening about ¼ by 3 inches.

Tabulations were made of the stretch at various pressures both during and after the first and second part of the test. No appreciable visible stretch occurred below 500 pounds per square inch on the first test. On the second test no visible stretch appeared until the pressure reached 650 pounds per square inch. On the second test the pressure rose rapidly to approximately 730 pounds per square inch and then went no higher, remaining essentially constant until the rupture occurred a few minutes later. The longitudinal permanent stretch of the pipe was 1⅛ inches on the near side and 1¼ inches on the far side.

The unit stresses in the plates based on the original diameters were 56,400 pounds and 58,400 pounds respectively on the first and second tests. Based on the enlarged diameters of the pipe, but still assuming original full thickness, these were 58,700 pounds and 61,000 pounds at the points of failure.

At the maximum enlargement the stresses reached 60,400 pounds and 62,900 pounds.

Portable X-Ray Service

A portable X-Ray machine, mounted on a trailer chassis, is the latest development in blazing new trails for industry by the St. John X-Ray Service, Inc., Long Island City, N. Y. The unit is said to be powerful enough to penetrate 3 inches of steel in a one-minute exposure and is particularly suitable for field inspection of structural material and equipment as well as of value in testing work in small plants which are not equipped with X-Ray apparatus.

Highway Bridge Design Contest Winners

WINNERS of three cash prizes and three honorable mentions for drawings submitted in the ninth annual highway bridge design contest for students of architecture and engineering in American colleges and universities have been announced by the sponsor, American Institute of Steel Construction, New York.

A. Herbert Mathes, a New York University student, was awarded the first prize of $150. Two other cash prizes went to students of Rensselaer Polytechnic, and of Iowa State College, with the honorable mentions going to undergraduates of the University of Oklahoma, Penn State, and Iowa State College.

BEARING METALS

We carry a large stock of phosphor bronze bushings and billets in 12" lengths for immediate shipment. Our bearing bronze is turned on the outside diameter to insure an even wall thickness and clean metal. We also make phosphor bronze castings and bushings from your patterns. Break-down jobs given special attention. Send for one of our stock bushing charts.

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Founders of Non-Ferrous Castings
WARNER & BAYARD STS. BALTIMORE, MD.
Established 1860

CLEAN, PRECISE
CASTINGS
Iron, Brass, Bronze, Aluminum, Special Mixes
Complete Foundry Service. Pattern and Machine Shops. We specialize in the quantity production of small and medium size castings, small machines and devices.
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"A Dependable Source of Supply"

CANNING MACHINERY
FOR
FRUITS · VEGETABLES · FISH · CITRUS FRUITS · ETC.
A. K. ROBINS & CO. INC. BALTIMORE, MD.
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Means the
Enrichment of the Nation

INVESTIGATE THE ECONOMIES AND ADVANTAGES OF—:
FREDERICK STOKERS
THE FREDERICK IRON & STEEL CO. -:- FREDERICK, MD.
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Masters of the craft for nearly sixty years—you may be sure your perforating problems are in safe hands when you give them to Erdle.

Whether your requirements call for aluminum, tin, zinc, brass, copper, steel, or another metal—Erdle can meet them. And meet them promptly—aided by large stocks of blank sheets kept always in readiness.

Send us your specifications for prices. Sample plate upon request.

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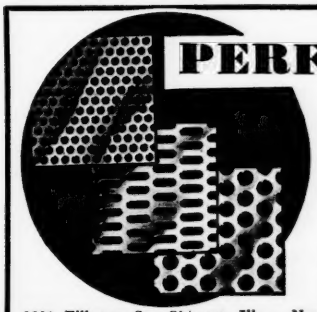
"Master Metal Perforators to Industry"



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of every sort
for Screening, Grading, Ventilating or any industrial purpose. Also Grilles of many beautiful designs.
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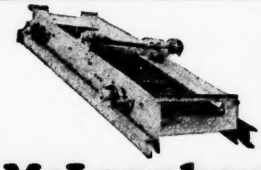
Extensive facilities and long experience make Hendrick the logical source for all perforated metals . . . screen plate with any shape opening, round, square, hexagonal, squaround.* slotted, corrugated . . . heating and ventilating grilles of every description. Hendrick can furnish them in any desired commercially-rolled metal. *Reg. U. S. Pat. Off.
HENDRICK MANUFACTURING CO.
44 Dundaff Street, Carbondale, Pa.
Manufacturers of Mitco Open Steel Flooring, Mitco Shur-Site Treads and Mitco Armorgrids.



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Single and double roll and jaw crushers, hammer mills, super dry pans,—steel log washers and scrubbers, sand drags, revolving and vibrating screens, elevators, conveyors, dryers, jigs, hoists,—complete portable, semi-portable and stationary crushing, screening and washing plants for different capacities of any materials.
McLanahan & Stone Corporation
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ORES, COAL, STONE, GRAVEL for Cotton-Seed Oil Mills, Cotton Gins, Phosphate Mines, Fertilizer Plants, Cyanide Works, Chemical Works. CEMENT, SAND, CLAY, ETC.
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of All Kinds of Metals for All Industries
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No. 7

No. 22

New Coal Marketing Organization Formed

Twenty-five of the leading smokeless coal producers in the West Virginia and Virginia fields, constituting a majority of smokeless coal production, have pooled their sales activities in the formation of a new merchandising organization, the Smokeless Coal Corporation, which has opened its offices at Number One Broadway, New York City.

The Smokeless Coal Corporation will market the output of the 25 producers, estimated at a total annual capacity of 35 million tons, originating in the Greenbrier, New River, Pocahontas, Tug River and Winding Gulf fields. The existing sales agencies of the producers will function under the new corporation as subagents, continuing to distribute smokeless coals under the individual names or trade marks of the producers, as in the past.

Officers of the corporation are: William Gaston Caperton, president, Hobart B. Baird, vice president; and Hugh R. Hawthorne, secretary and treasurer.

Silver Anniversary

Under the caption, "25 Years of This and That," Rickard and Company, Inc., an advertising agency founded in 1912, with general offices at 330 West 42nd Street, New York, has issued a very attractive booklet published in black and silver which it has dedicated to its clients, past and present, and to "the host of loyal friends" the agency has made among publishers, advertising crafts and competitors during the past twenty-five years. The firm gave a silver anniversary reception in the East Ball Room of Hotel Astor, New York, on April 22, at which there was an attendance, it is said, of approximately 300 guests.

A. C. F. Bus Deliveries

In the last half of March, Southern deliveries of A. C. F. Buses by The A. C. F. Motors Company, New York City, division of American Car and Foundry Motors Company, included 21 Model H-16-S 41 passenger street cars to Capital Transit Company, Washington, D. C., and 5 Model H-13-S 30 passenger street cars to Houston Electric Company, Houston, Tex.

Rand McNally Bankers Directory.—This publication, the first of the 1937 edition, continues the policy of Rand McNally & Company, Chicago, Ill., to render highly efficient service in the directory field to banks, investment dealers, and commercial organizations, by the inauguration of improvements giving complete membership of the Investment Bankers Association. The new Index is in dictionary style. Every page in the First 1937 Blue Book, the 122nd edition, has been revised, incorporating changes in the banking field in the last six months, with latest information regarding officer and director lists, statement of condition, new banks, mergers, consolidations, discontinued banks, etc.

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M6C—½HP

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For
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Rates $3.00 *per day and up. Every room with bath or shower. Centrally located.*

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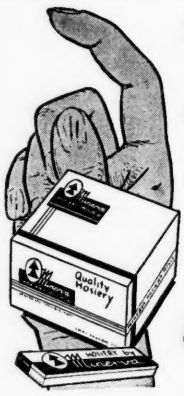

Do Your Packages Possess that "Come Hither" Appeal?

Haven't you noticed yourself that some merchandise impels while other repels? Some packages beckon to you to come on and buy, while others seem to shout, "Pass me by." Let us make your containers allure and capitalize on that first impulse—WHICH IS TO BUY!

Co-ordinated Packaging Produces Sales!

Your package may be co-ordinated with your advertising, and especially, if you have a family of products, will co-ordination influence and increase sales. We can give your boxes, counter and window displays, shipping containers, etc., a distinctive style AND A FAMILY RELATIONSHIP. We're a long way from Missouri —but let us show you—with actual suggestions!

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Folding and set-up boxes, cartons, counter and window displays, and shipping containers.

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Old Dominion Paper Boxes